Handbook

NIVUS WebPortal

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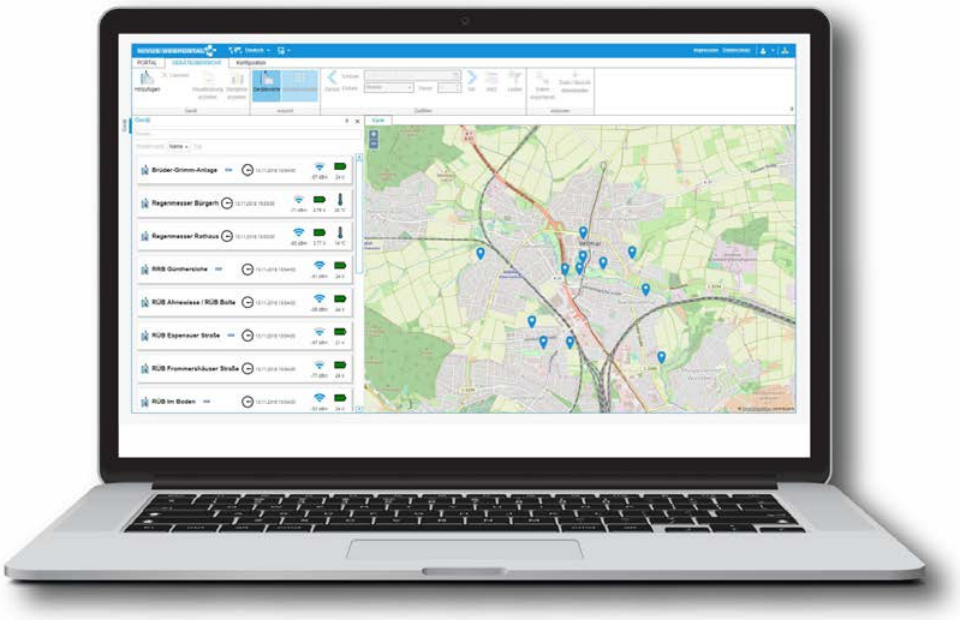
Original Handbook: German, Rev. 04 as of 24.01.2023



measure analyse optimise

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1 Revision History

Revision	Date	Modifications	Editor
04	2023-04-04	**Formal changes and corrections:** spelling, layout, wording, document structure **Change in content:** Adaptation of all information on articles, services and licences to the new article structure as of 2022 **Changed functions:** Simplified configuration of calculation values	KG
03	2022-01-25	**Complete revision**, the main changes are listed below. **Corrections to the content:** Connection Status Configuration of event reports: Validity of events Revision of all information on licences for additional services **Amendments:** Calculation values: Statistical functions and syntax examples Reset Password **Terminological changes**, the main changes are: **Device Overview** tab → **Measuring Points** **Configuration** tab → **Project** Message (in the message book) → Message Book Entry Reaction HIGH → Reaction for Enter Reaction LOW → Reaction for Leave Text Reaction HIGH → Text for Enter Text Reaction LOW → Text for Leave Report → Event Report **Changed Functions:** Logging in to NIVUS WebPortal and editing the user profile are done via the NIVUS-Identity Server CSV export in the chart view only for the PVs of the hydrographs Export Templates Administrator rights for multiple users possible **New Functions:** Hydrographs Report DWA Event Report Hydrograph Templates Remote Alarming via SMS Remote Access Release measuring point licence (only for extension modules **Alarm**, **Visualisation** and **Hydrographs**) **Document Structure:** New Chap. 4, Restructuring Chap. 3, Chap. 5.3.2 and Chap. 6	KG
02	2021-02-02	Creation	KG
01	-	Was skipped	
00	-	Was skipped	

2 General Information

2.1 Licence Agreement

Access to the NIVUS WebPortal is made available under a licence agreement. The use includes the execution of the programs. The licence agreement defines what you may do with the NIVUS WebPortal and regulates warranty limitations and claims for damages.

Read the licence agreement thoroughly before you start working with the NIVUS WebPortal.

Access to the NIVUS WebPortal may not be lent or leased against payment. The resale of the access to a third party is not permitted. Decompiling, reverse engineering and reassembling NIVUS WebPortal as well as any other modification is not permitted.

2.2 Copyright

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2.3 Disclaimer

The companies of the NIVUS-Group assume no liability

- for consequential damages resulting from a change in this manual. The companies of the NIVUS-Group reserve the right to change the contents of the handbook including this disclaimer without prior notice.
- for errors and loss of data due to improper handling of the software and for any consequential damage resulting from this.
- for errors, loss of data or problems resulting from insufficient knowledge of the operating system (Windows 8 or Windows 10).
- for errors and loss of data due to a disrupted Internet connection.
- for errors and loss of data due to server failure.
- for errors and loss of data caused by customer hardware.

The companies of the NIVUS-Group therefore disclaim any warranty for the transmission of messages and measured values.

The operator alone bears the risk.

2.4 About this Manual

This software manual is part of the software and contains all information required for the intended use of the software.

The following knowledge is presumed and hence will not be explained:

- Basic knowledge on the OS (Windows 8 or Windows 10) and particularly how to use it
- Basic control elements such as mouse, windows, buttons and similar

Observe the following notes:

- Read this software manual before you use the NIVUS WebPortal.
- Keep this manual in a place where it is always accessible to all users.
- Observe the safety information contained in this software manual.
- All **Screenshots** in this documentation are **Application Examples**. Depending on operating system, software version of installed tools, user rights and activated licences some representations may vary from the actual screens.

2.4.1 Writing Conventions

Representation and Meaning	Remark
Important	Important information
Button	Name of a button
Menu > Menu Point	Menu selection Path to a menu point
Menu	Name of a menu point
Window	Name of a window
`System Output`	Value output by the system
`User Entry`	Value to be specified or selected by the user
Cross-Reference	Cross-Reference within the document, linked
Directory > File	Path to a directory or a file or name of a file
[Value]	Placeholder for an entry-based or application-based value

2.4.2 List of Abbreviations

Abbreviation	Meaning
PV	Process Variable
SO	Stormwater Overflow
SOT	Stormwater Overflow Tank

2.5 Support

Contact the NIVUS WebPortal support under:

- E-Mail: hotline@nivus.com
- Phone: +49 7262 9191-955

3 NIVUS WebPortal

The NIVUS WebPortal is a data management system for storage and provision of measurement data. All data is saved in the cloud.

Abb. 3-1: NIVUS WebPortal

Functions

The NIVUS WebPortal provides functions for:

- Analysis of Measurement Data
- System Verification
- Data Forwarding
- Alerting
- Creation of Protocols

3.1 System Requirements

The user interface of the NIVUS WebPortal is web-based. You can call up the NIVUS WebPortal in a standard web browser (recommended: use Google Chrome, Internet Explorer is not supported). There is no need to install additional add-ons.

3.2 Articles and Services

Note: The following information on articles and services applies to orders as of 2022. All information on articles and services from older orders can be found in the manual **NIVUS WebPortal Rev. 03**.

There are different service packages per measuring point in the NIVUS WebPortal. In the following table you will find the different articles, their inclusive services and the optional additional services.

Tab. 3-1: Articles and Services on a Measuring Point in NIVUS WebPortal

Service	NIVUWEBCON1 NIVUWEBCON2	NIVUHUBCON1 NIVUHUBCON2	NIVUWEB	NIVUHUB
Nivus SIM Card	x	x	-	-
SIM Card Licence	x	x	x	x
Measuring Point Licence	x	x	x	x
Message Book	x	-	x	-
E-Mail Alarming	x	-	x	-
SMS Alarming	Additional Service SNI0WEBPSMS	-	Additional Service SNI0WEBPSMS	-
Visualisation (Process image required)	x	-	x	-
Process image with max. 20 process variables, required for visualisation	Additional Service SNI0BILD1000000	-	Additional Service SNI0BILD1000000	-
Hydrographs, basic functions	x	-	x	-
Files and Reports	x	-	x	-
Add-on for the logging of one-chamber stormwater treatment plants (= creation of monthly and annual reports)	Additional Service SNI0WEBPRUEB	-	Additional Service SNI0WEBPRUEB	-
Template for Excel-based reports with max. 20 process variables	Additional Service SNI0BEREXCEL01	-	Additional Service SNI0BEREXCEL01	-
Remote access to devices with remote access function	x	x	-	-

In the following table you will find the optional additional services for projects.

Tab. 3-2: Additional Services for Projects

Art.-No.	Name	Description
SIN0WEBMESSPROL	Project Licence	Licence for one additional project
SNI0WEBMESSSTEL	Measuring Point Licence	Licence for one additional measuring point
SNI0WEBMGRAPH	Cross-Measuring Point Hydrograph Module	Extended editing options for charts at all measuring points of a project
SNI0WEBMPOVER	Project Overview	Customer-specific visualisation as start screen for a project in NIVUS WebPortal (process image SNI0-BILD1000000 required)

Further information on the services can be found in the current price list.

Related links
Activation of Licences for Additional Services

3.3 The Path to NIVUS WebPortal

If you order NIVUS devices with or without extra licences for the use of the NIVUS WebPortal you will receive an e-mail from NIVUS or your local distributor

- containing a link for initial access to NIVUS WebPortal. Use this link to create your own project.
- containing an overview on ordered devices and the according licences. These are available for you in the NIVUS WebPortal.

Once these conditions are fulfilled you can execute all further steps required for the use of the NIVUS WebPortal:

- Create your customer project in NIVUS WebPortal
- Add the ordered devices to your project
- Optional: activate licences for additional services

Related links
Create and open initial Project
Add new device
Activate Measuring Point or Device Licence

3.4 Basic Information on NIVUS WebPortal

The basic variables of an application are:

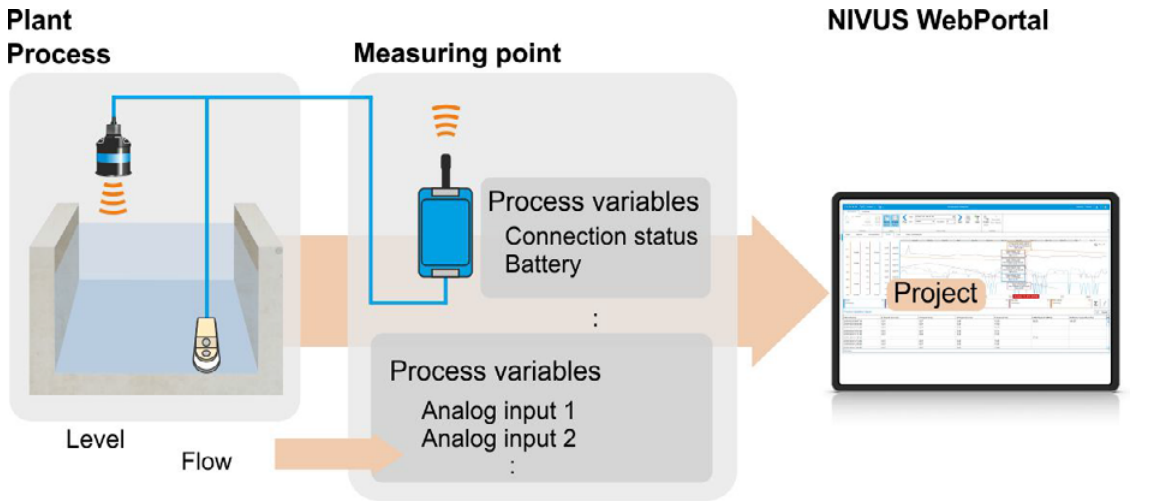
- Plant
- Measuring Point
- Device
- Process Condition

These variables are represented in NIVUS WebPortal as follows:

Tab. 3-3: Application - NIVUS WebPortal

Application	Image in NIVUS WebPortal
Plant	Project
Measuring Point	Measuring Point / Measuring Point Configuration
Device	Device
Process Condition	Process Variable (PV)

Abb. 3-2: Basic Units in NIVUS WebPortal



3.4.1 Project

A project represents the plant (= sum of measuring points) in the NIVUS WebPortal. As soon as you have received the link for initial access from NIVUS you can create your customer project. The according devices re created by NIVUS in NIVUS WebPortal. You need to add these to the project.

You can extend your project by additional devices at any time. As soon as you place an order the according devices will be created by NIVUS which pertmits you to add them to the project.

In most cases one project per customer is sufficient. More projects can be created in NIVUS WebPortal if you should need to do so. Should you wish to use devices in more than one project it is possible to shift them between projects. Observe that you need to purchase additional licences to do this.

Related links

Create and open initial Project
Create Additional Project
Add new device
Shift Device

3.4.2 Measuring Point - Device

The device data are saved in NIVUS WebPortal related to a measuring point. The measuring point - device assignment determines on which measuring point the data is to be saved.

The basic version of a customer project assumes the fixed use of all devices on always the same measuring point each and includes

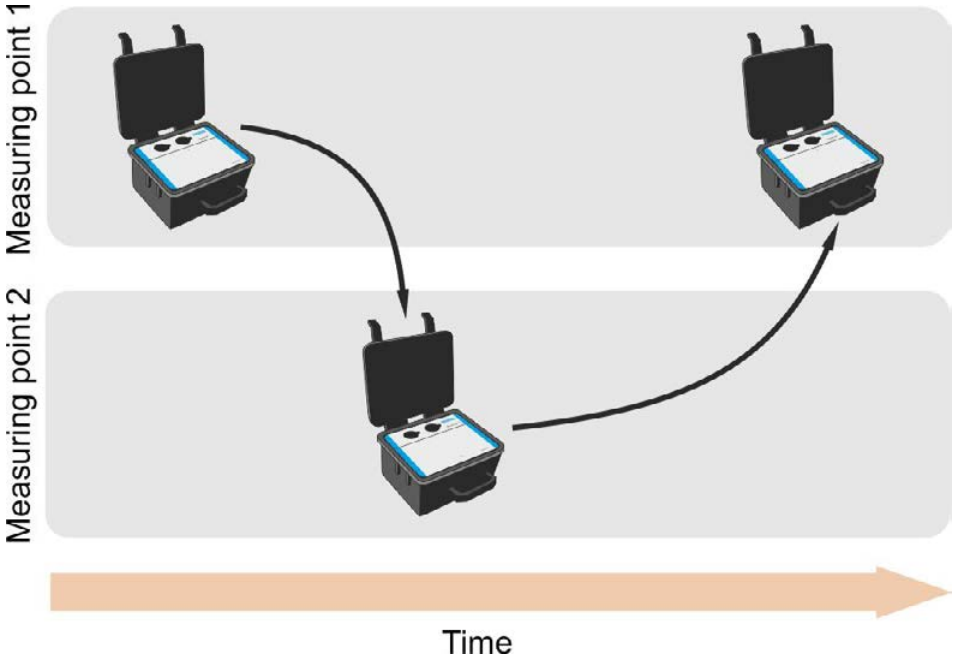
- all device configurations and all measuring point configurations according to your plant in NIVUS WebPortal,
- one assignment to a measuring point and one activated measuring point licence per device.

You need to

- purchase and activate licences for all desired extra services (e. g. process image).

You can use each device alternately on different measuring points (see figure below). Consequently, you can operate several measuring points with one device.

Abb. 3-3: Assignment Measuring Point - Device



In this case you need to

- purchase a measuring point licence for each additional measuring point,
- create each additional measuring point in NIVUS WebPortal,
- assign each device to the measuring point it is currently used with,
- purchase and activate a licence for each desired additional service at a measuring point (e. g. SMS alarming).

As a rule:

- Assignment Measuring Point : Device = 1 : 1
- Data can only be saved in NIVUS WebPortal when a device is assigned to a measuring point.
- If a device is for fixed use with a measuring point it must be assigned to a measuring point anyway.
- The process variables are attached to the measuring point. The measuring point configuration must correspond with the connected type of device to make sure that a process variable can be assigned to each device input. When configuring the measuring point, you must therefore specify the desired device type; the required process variables are then automatically created at the measuring point.

Important: The measuring point configuration includes the process variables for a certain device type. You can use a device on a measuring point that does not exactly match the measuring point configuration. **In this case the data for which there is no assignment of device input to a process variable is lost.**

Related links
Activation of Licences for Additional Services
Measuring Points
Devices

3.4.3 Process Variables

3.4.3.1 Basics on Process Variables

Process condition and process changes are represented by process variables (PVs) in the NIVUS WebPortal.

The value of a process variable at a certain point in time is the process value.

For different kinds of applications there are different kinds of process variable types.

Once you purchase devices with licences for the use with the NIVUS WebPortal devices and measuring points including the required process variables are created for you in the NIVUS WebPortal. Create additional measuring points with the required process variables yourself. You can call up and edit the configuration of process variables under **Device Overview > Measuring Point Configuration**.

Among other things, the PV configuration contains:

- Creation of messages from the process variable
- Creation of a remote alarm from a process variable
- Active-status of process variable

Note: A process variable is effective only as soon as it is activated.

Related links
Path to the Message Book Entry
Path to Remote Alarming
Configuration of Process Variables
Measuring Points

3.4.3.2 Types of PVs

There are different types of process variables for various kinds of applications.

Tab. 3-4: Types of Process Variables: Overview and Description

Representation	Name	Characteristics	Use	Availability
	Measured Value	Analog Input	Recording and representation of measurement values	Standard PV, all devices
	Message	Digital Input	Recording and representation of messages (error, warning, operational, system messages)	Standard PV, all devices
	Counter	Counter	Recording and display of counter values (impulse counters, differential counters, integral counters)	Standard PV, all devices
	Calculation value	Calculated Value	Statistical evaluations from the process values of a process variable	Optional additional PV

3.4.3.3 Measuring Point Values and Device Values

Device values are values which have been internally created by a device.

Measuring point values are all device values from all devices which are registered in a measuring point and can be recorded and saved in NIVUS WebPortal. To achieve this one device each must be assigned to a measuring point and a process variable must be assigned to each device input at the measuring point.

3.4.4 Communication

In order to enable communication between NIVUS WebPortal and a device and to make data available for the user all requirements must be fulfilled.

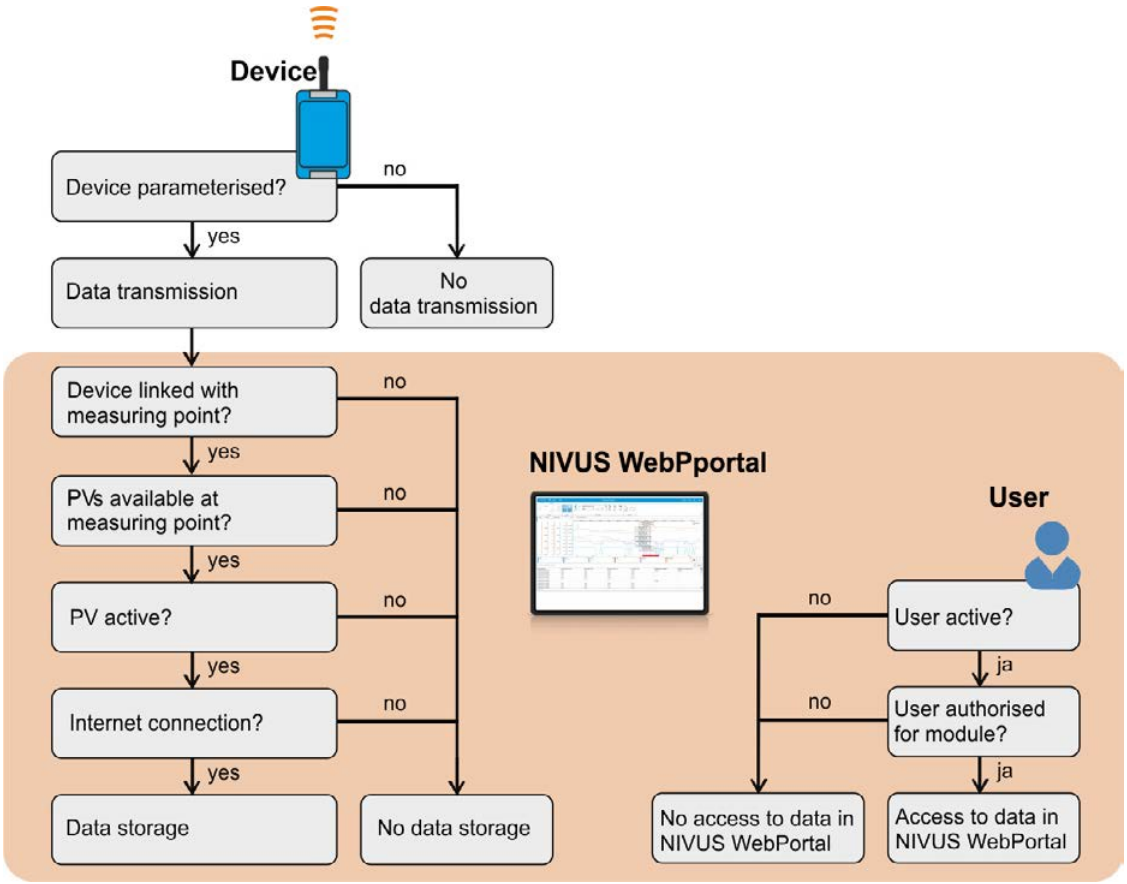
Requirements for communication:

- The device parameters for communication with the NIVUS WebPortal have been set accordingly (see instruction manual / handbook of device).
- In the NIVUS WebPortal
  - the device is assigned to a measuring point,
  - process variables for all device inputs have been created on the measuring point,
  - the process variables have been activated.
- Internet connection between the device and NIVUS WebPortal is established.

Requirements for data access in NIVUS **WebPortal by the user:**

- The user is activated.
- The user is authorised for the desired service (e. g. Visualisation Module).

Abb. 3-4: Requirements for Communication and Data Access



3.4.5 Path to the Message Book Entry

Process variables can create message book entries. Several conditions must be fulfilled to create an entry in the message book. You define these conditions in the PV configuration.

A process variable can create a message book entry in the following cases:

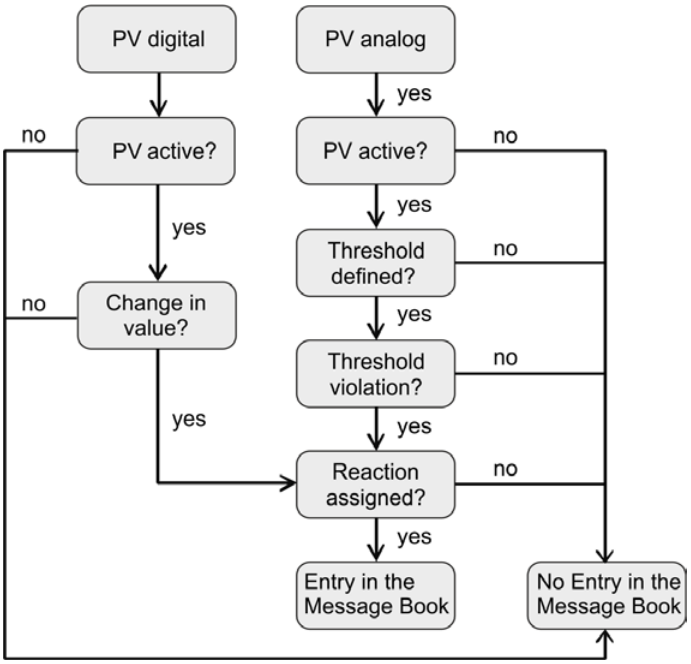
- A digital process variable changes its value.
- An analogue process variable reaches, exceeds or falls below the defined message threshold (= limit value violation).

Prerequisites for the creation of message book entries:

- The process variable is activated.
  Activate / deactivate process variables: PV configuration
- A reaction is assigned to a **digital process variable**.
  Assign reactions to a process variable: PV configuration
- For an **analog process variable** there is at least one defined message threshold. The message threshold is assigned to a reaction.
  Assign message thresholds to a process variable: PV configuration
  Configuration of message thresholds: sub-section of PV configuration
  Assign reactions to a message threshold: configuration of message thresholds

The following illustration shows the internal check mechanisms that result in an entry or no entry being generated in the message book.

Abb. 3-5: Creation of a message book entry from a process variable



All entries are saved in the message book (tab **Measuring Points** > view **Alarms**). Moreover, users can be informed via remote alarming.

3.4.6 Path to Remote Alarming

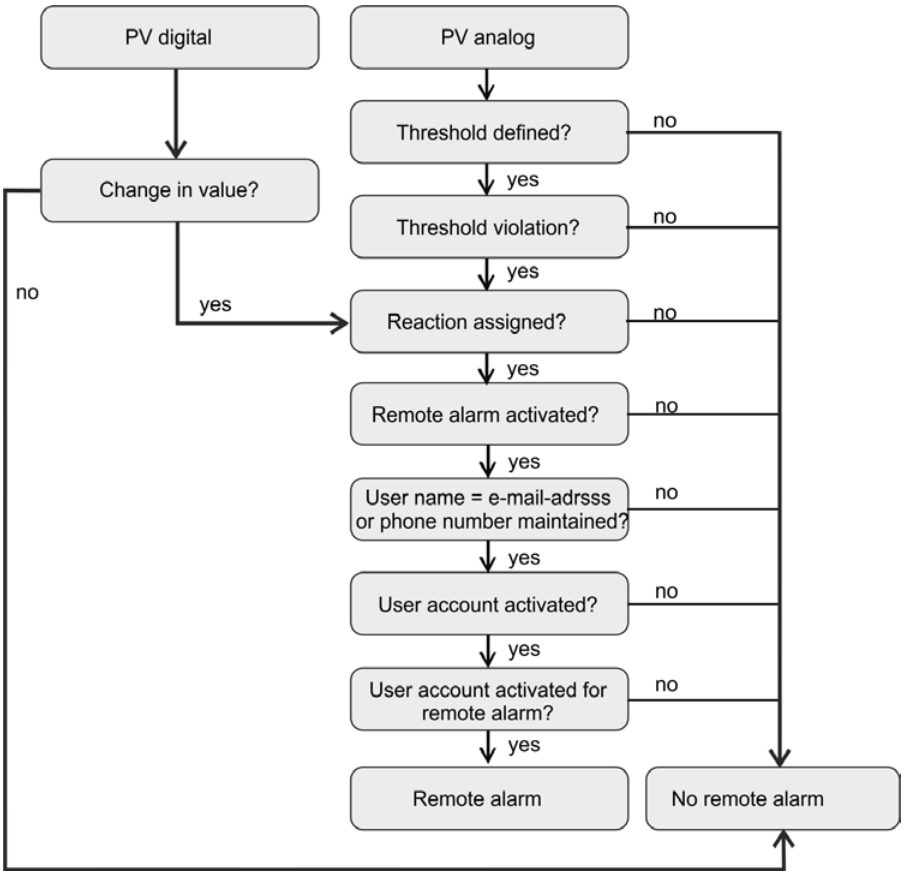
As soon as the process condition is changing, i.e. if a process variable changes its value and all requirements for remote alarming have been met the alarm is triggered. This means that as soon as a certain event occurs the user will be informed accordingly via email and /or SMS. Several requirements need to be met in order to trigger remote alarming.

Prerequisites for Remote Alarming:

- The **Alarms** module is unlocked for the unit (additional service at extra charge).
- The **process variable** is activated.
  Activate / deactivate process variables: PV configuration
- A reaction with active remote alarming is assigned to a **digital process variable**.
  Assign reactions to a process variable: PV configuration
- For an **analog process variable** there is at least one defined message threshold. A reaction with active remote alarming is assigned to the message threshold.
  Assign message thresholds to a process variable: PV configuration
  Configuration of message thresholds: sub-section of PV configuration
  Assign reactions to a message threshold: configuration of message thresholds
- The user account of the **user** is registered with a valid email address as user name, the account is activated and unlocked for remote alarming.
  For remote alarming by e-mail: The user name is a valid e-mail address and remote alarming by e-mail is activated.
  For remote alarming by SMS (additional service at extra charge): The user's telephone number is stored in the NIVUS WebPortal and remote alarming by SMS is activated.
  Edit user: tab > **User** (administrator rights required)

The following image provides an overview on the internal test mechanisms used to determine whether remote alarming is triggered or not.

Abb. 3-6: Path to Remote Alarming



3.4.7 Authorisations

Some functions or actions are bound to certain authorisations, i. e. they can only be used or executed by authorised users. In the NIVUS WebPortal there are 2 authorisation levels.

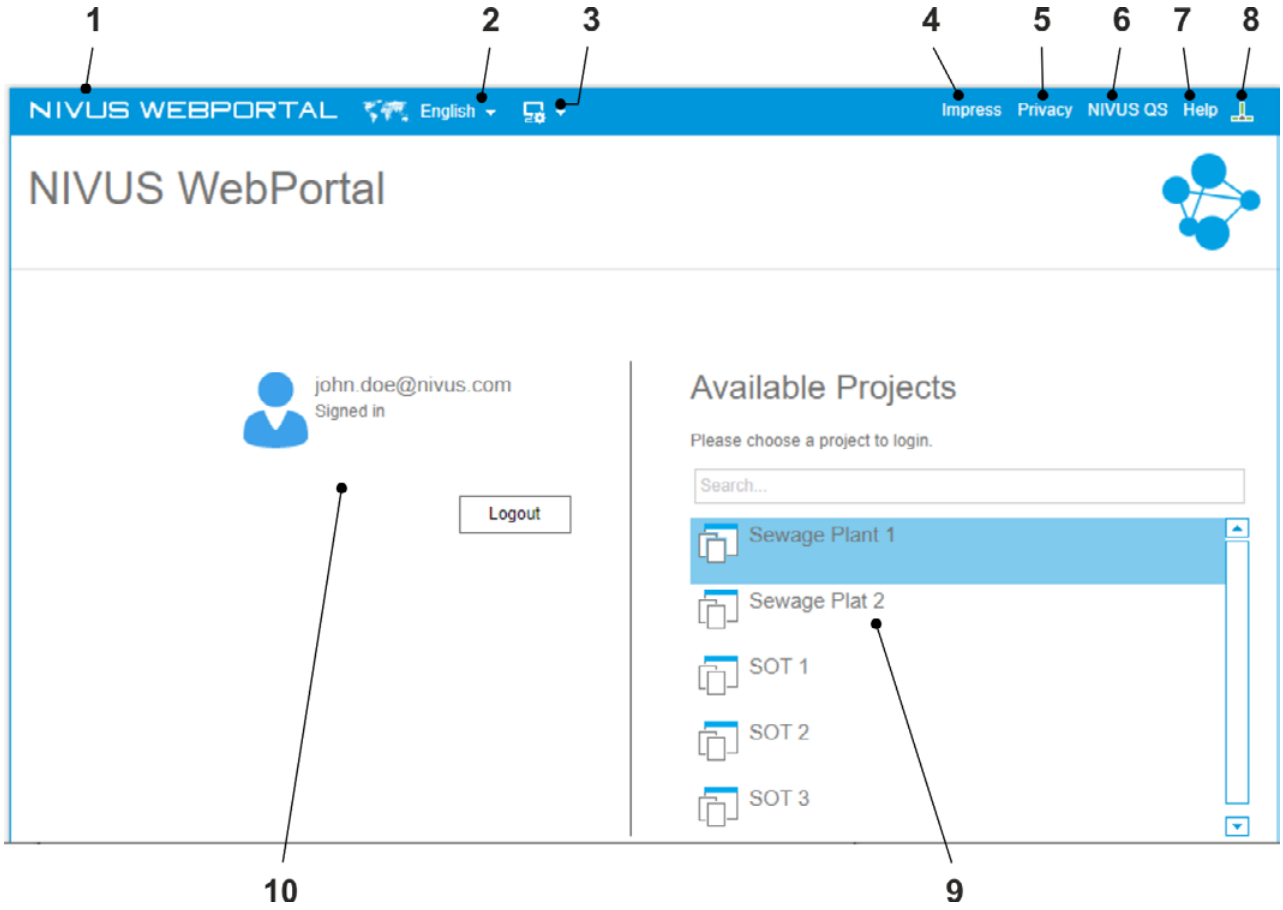
Tab. 3-5: Authorisation levels in NIVUS WebPortal

Authorisation Level	Authorisation for	Notes
Administrator Rights	Edit user accounts and user authorisations Create additional project (licence required) Measuring point handling: create, move and link measuring points and devices Activate Licences Configure and perform remote access (only possible for devices with NIVUS SIM card and remote access function).	There can be any number of users with administrator rights in the project. The user who creates the project is automatically given administrator rights. This user can grant administrator rights to other users.
access rights	Use and edit **Visualisation**, **Hydrographs**, **Log**, **Measuring Point Configuration**, **Alarms** or **Files and Reports**	Access rights can be assigned individually.

4 Interface and Working Area

4.1 Start Screen

Abb. 4-7: NIVUS WebPortal: Start Screen



1 Menu Bar
2 Opens the language selection
3 Opens the colour selection of the user interface
4 Opens the imprint
5 Opens the Privacy Statement
6 Calls up the NIVUS Quick Support

Important: Execute the NIVUS Quick Support only if you have been requested to do so by a NIVUS service employee.

7 Opens the NIVUS WebPortal handbook or the NIVUS WebPortal video tutorials
8 Shows the connection status

Green: connected to server

Yellow: connected to server but no service available

Red: not connected to server

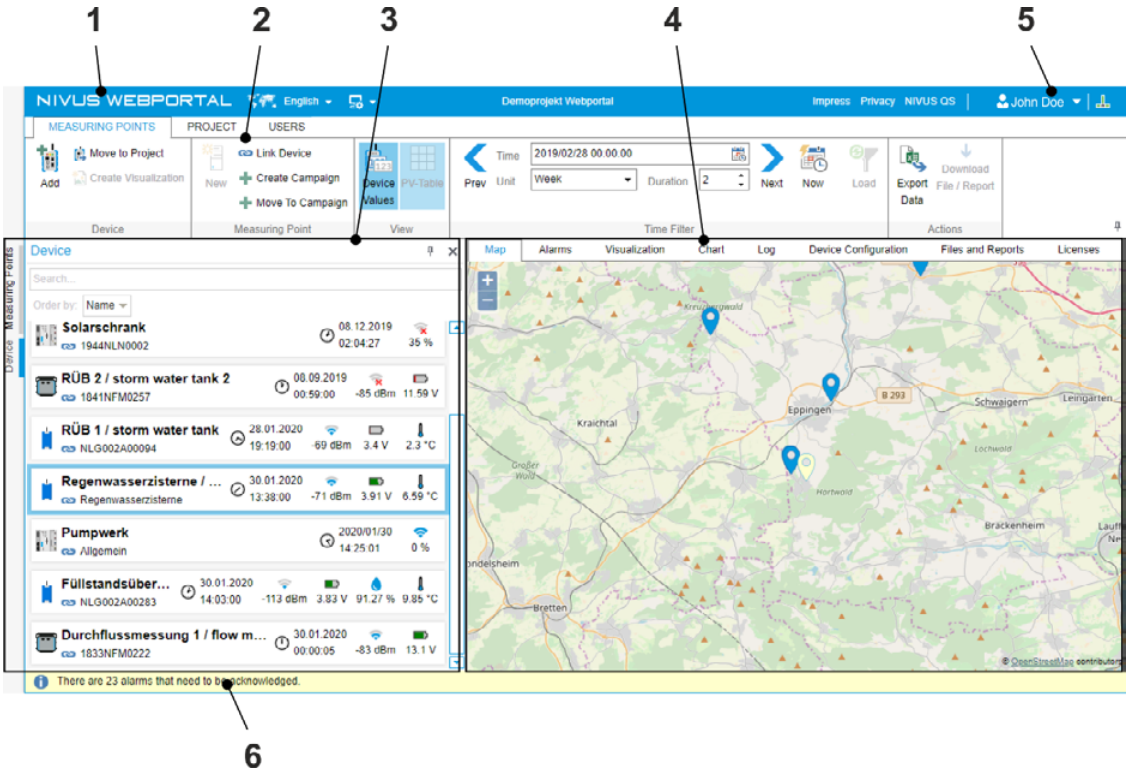
9 Projects List
10 Logged in user

Note: As soon as you have successfully logged in with the NIVUS WebPortal the menu bar additionally shows the project name and the user name.

4.2 Main Screen

The NIVUS WebPortal opens its main screen in the > **Measuring Points** tab. The user interface is divided into 4 main sections.

Abb. 4-8: Main screen in the **Measuring Points** tab



1 Menu bar

2 Function Bar
For all users: **Measuring Points** tab
For users with administrator rights: **Project** and **User** tabs

3 Navigation Area

4 Working area (see **Measuring Points** > Working area)

5 User Menu
The user menu is shown as soon as you have successfully logged in.

6 Alarms bar: shows the number of pending message book entries in the current project
Overview on all message book entries and option to acknowledge the pending message book entries: view **> Alarms**

Note: The screen in the **User** tab is structured accordingly. Details on the screen in the **Project** tab can be found in the respective chapter.

Related links
Measuring Points Tab
Project tab
User Tab

4.3 User Menu

If you are logged into the NIVUS WebPortal, you will find the user menu in the top right-hand corner of the menu bar.

Abb. 4-9: User Menu

When you open the user menu, you can edit your personal user settings. These are

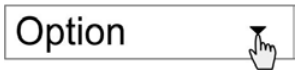
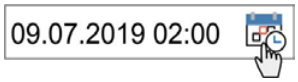
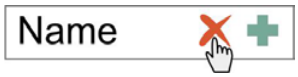
- **Log Out**: Here, you can
  - log out of the NIVUS WebPortal
  - set the time after which you are automatically logged out of the NIVUS WebPortal
- **User Profile**: your user profile is saved on the NIVUS Identity Server. To edit the user profile click on **User Profile > Edit Profile**. You then will be redirected to the NIVUS Identity Server. Here, you can
  - change, download or delete your personal data
  - change your password

  Password requirements: at least 8 characters, at least 1 uppercase letter, at least 1 lowercase letter, at least one special character
  - set up two-factor authentication
- **User Actions**: Here you can call up your user actions over a specific time range.

4.4 Input Options

There are many configuration options in NIVUS WebPortal. The following table provides an overview on the possible input options.

Tab. 4-6: Input Options

Image	Function	Input
	Input field	Enter free text
	Opens a dropdown menu	Select option
	Opens the calendar	Open calendar, then select date and time **or** mark and overwrite value
	Number field	Count numerical value up or down by using the arrow keys **or** Mark and overwrite value
	Opens a selection window **or** Opens a configuration window	Select an option **or** Configure value, e. g. message thresholds
	Deletes a selected option	 call up with mouseover, then click
	Checkbox	Activate or deactivate function or option
	Colour input field, opens the colour palette	Open the colour palette and select colour **or** specify HSB value **or** specify RGB value **or** specify hexadecimal colour code

5 First Steps and Project Processing

5.1 Create and open initial Project

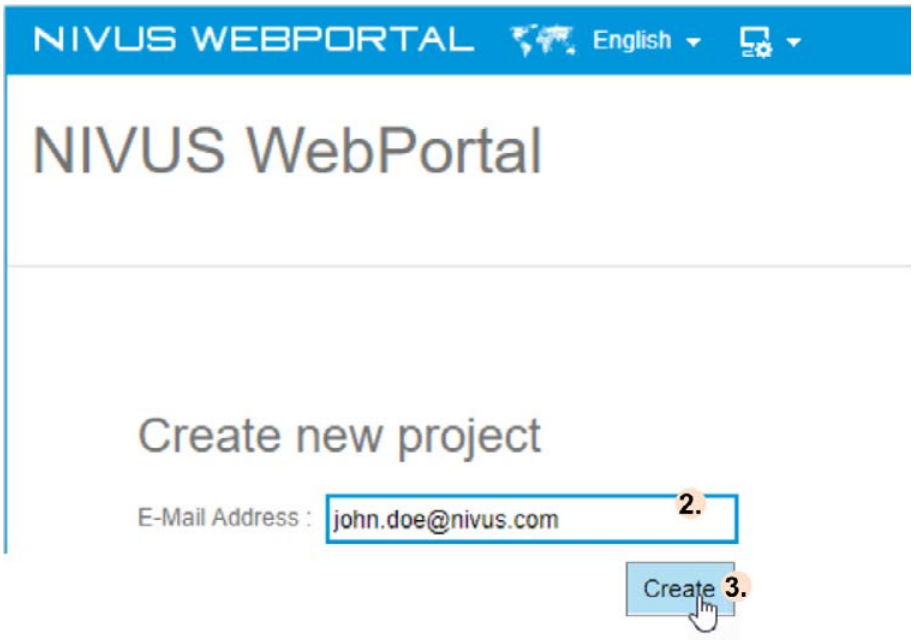
In order to use the NIVUS WebPortal it is necessary to create your own customer project.

Prerequisite(s)

✓ You have received an email including the link for initial access to the NIVUS WebPortal.

Procedure

1. Open initial access by using the link
   → The NIVUS WebPortal opens presenting the initial screen.
2. Enter the user name
   ⓘ The user must be a valid email address.
   ⓘ This first user is automatically given administrator rights.



3. Click **Create**
   → The project is now created which may take a while. After this the success message is shown.
   → You will receive an email confirmation including a link you can use to create your personal password (e-mail address = user name).
4. Close NIVUS WebPortal (Internet browser)

5. Create password:
   - Open the function using the link in the confirmation email
   - Enter the password
     ⓘ Password requirements: at least 8 characters, at least 1 uppercase letter, at least 1 lowercase letter, at least one special character
   - Repeat the password
   - Confirm with **Set Password**

   → The password is created.

   → The success message opens.
6. Open project:
   - Click **Back to Login**

     → The start screen opens
   - Enter the user name
   - Enter the password
   - Click **Login**

   → Your project will open up in NIVUS WebPortal with the main screen.

After Completing This Task

Add device(s)

Optional: activate licence(s) for additional services

Related links

Main Screen

Add new device

5.2 Start NIVUS WebPortal

Procedure

1. Open web browser (use HTML5 browser, recommended: Google Chrome, Internet Explorer is not supported)
2. Type `https://www.nivuswebportal.com` into the address line of the browser and confirm with **Enter**

   → The login mask of the NIVUS WebPortal opens.
3. Enter the user name
4. Enter the password
5. Click **Login**

   → If the user has access to multiple projects: the start screen of the NIVUS WebPortal including the list of projects is called up.

   → If the user has access to one project: the NIVUS WebPortal main screen opens.
6. If the user has access to multiple projects: select a project from the list.

Result

→ The NIVUS WebPortal main screen opens.

5.3 Activation of Licences for Additional Services

To activate the functions of additional services, the corresponding licence must be activated in the NIVUS WebPortal.

The activation of licences differs according to the following licence types:

Tab. 5-7: Activation of Licence Types

Licence Type	Description	Activation through	Procedure see
Device Licence	Licence for a specific function on a specific device, linked to the serial number of the device.	Customer	Activate Measuring Point or Device Licence
Measuring Point Licence	Licence for a certain service on a measuring point.	NIVUS or customer	
Project Licence	Licence for a project-related service.	NIVUS or customer	Activation of Licences for Additional Services

5.4 Change Project

If your user account has access to multiple projects you can change between the projects. The following sequence describes the procedure.

Procedure

1. Reload NIVUS WebPortal: Press **F5** on the keyboard
   → NIVUS WebPortal goes back to the start screen.
2. Select the desired project from the projets list

Result

→ The NIVUS WebPortal main screen opens in the selected project.

5.5 Reset Password

If you can no longer log in to the NIVUS WebPortal because you have forgotten your password, you can reset your password.

Procedure

1. Open the web browser (use HTML5 browser, recommendation: Google Chrome, Internet Explorer is not supported)
2. Type `https://www.nivuswebportal.com` into the address line of the browser and confirm with **Enter**
   → The login mask of the NIVUS WebPortal opens.
3. Click **Forgot Password**
4. Enter the e-mail address you use as your user name and confirm with **Submit**
   → You will receive an e-mail containing a link to the NIVUS Identity Server
5. Open the link
   → You will be redirected to the NIVUS Identity Server.
6. Enter a new password
   ⓘ Password requirements: at least 8 characters, at least 1 uppercase letter, at least 1 lowercase letter, at least one special character.
7. Repeat the new password
8. Confirm with **Set Password**
   → The execution of the action is confirmed.
9. Open the desired application

Target	Procedure
NIVUS Identity Server	Open the link in the confirmation.
NIVUS WebPortal	Type `https://www.nivuswebportal.com` into the address line of the browser again and confirm with **Enter**

6 Measuring Points Tab

The > **Measuring Points** tab is subdivided into 3 sections:

Function Bar

- Functions to create and to edit the measuring points
- Functions to call up the device values (process values of the device PVs)
- Option to export device values
- Time Filter

Navigation Area

- Measuring points overview containing all measuring points created in the project
- Devices list containing all devices created in the project
- Option to select the measuring point of which data is to be shown in the working area

Working Area

- Basic content:
  - Indication of measuring points on a map
  - Measuring Point Configuration
  - Log (only for trained personnel): log data of NivuFlow and NivuFlow Mobile devices
  - Licence
  - Message Book
  - Measuring point values as visualisation
  - Measuring point values as chart
  - Files and Reports
- For devices with NIVUS SIM card and remote access function:
  - Remote Access

Related links

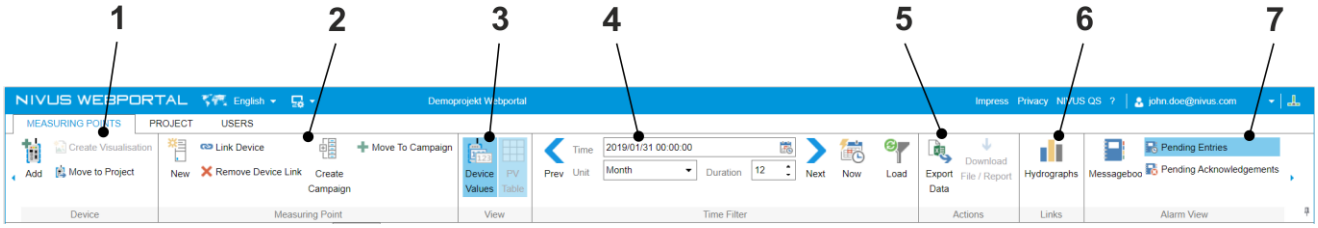
Function Bar
Navigation Area
Working Area

6.1 Function Bar

Overview Menu Options

> **Measuring Points**

Abb. 6-10: Function Bar in the **Measuring Points** tab

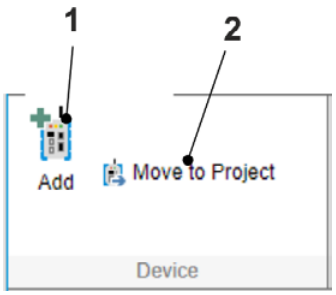


1 Group **Device**
2 Group **Measuring Point**
3 Group **View**
4 Group **Time Filter**
5 Group **Actions**
6 Group **Links**
7 Group **Alarm View**

Note: The group **Alarm View** is shown only if the **Alarms** view is opened in the working area.

Group Device

Abb. 6-11: Group **Device**



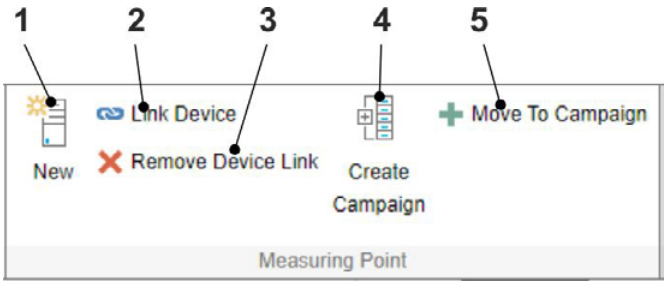
1 Only active if a new device configuration has been created for the customer by NIVUS which has not yet been added to a project. Opens the **Select device** window to create a new device in the current project.
2 Opens the **Select project** window to move the device selected in the devices list (Navigation Area) to a different project.
If a measuring point is selected in the navigation area the device linked with this measuring point will be moved.

Note: The activated licences for additional services at a measuring point are part of the measuring point and will not be moved. The activated device licences are part of the unit and will be moved with the device.

Group Measuring Point

The functions **2**, **3** and **5** refer to the measuring point selected in the navigation area. If a device is selected in the navigation area the functions refer to the measuring point which is linked with the device.

Abb. 6-12: Group **Measuring Point**



1 Opens the **Create new measuring point** window

2 Opens the **Select device** window to link a device with the selected measuring point

Note: If a device is selected in the navigation area the newly selected device is assigned to the linked measuring point.

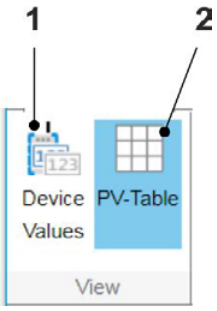
3 Removes the selected measuring point - device link

4 Opens the **Create new campaign** window to create a campaign for the grouping of measuring points

5 Opens the **Select campaign** window to assign the selected measuring point to a (different) campaign within the current project

Group View

Abb. 6-13: Group **View**



1 Shows / hides (highlighted blue = shown) the device values in the measuring point overview / devices list (navigation area)

2 Shows /hides (highlighted blue = shown) the according PV range in the > **Visualisation** and > **Hydrographs** views

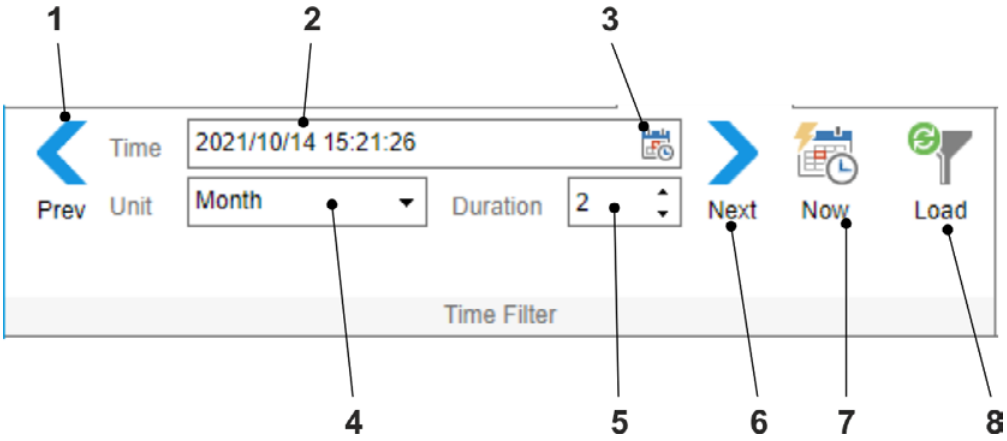
Group Time Filter

Use the time filter to narrow down values shown in the working area (e. g. in a chart or in a value table) covering a certain period.

Calculation of the Time Area:

- End Time as configured (**2**)
- Start Time = End Time (**2**) - (Unit (**4**) * Duration (**5**)

Abb. 6-14: Group Time Filter



1 Shifts the source time to one interval earlier
The interval results from the settings in (**4**) and (**5**).
2 Input field for the source time (= end time) of the period to be considered
3 Opens the calendar
4 Opens the dropdown menu to select the interval unit
5 Input field to specify the interval duration
6 Shifts the source time to one interval later
The interval results from the settings in (**4**) and (**5**).
7 Sets the current time as the source time and loads the time range
8 Optional: loads the time area

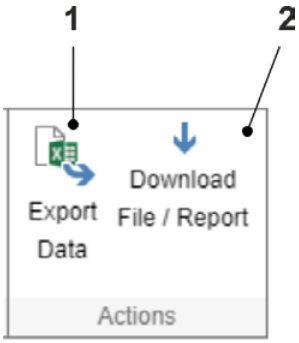
Note: If you load the time area the process values will be reloaded in the current view.

Note: If you extend the time area loading the process values may take a little longer.

Group Actions

Here you can export process values or files related to the measuring point.

Abb. 6-15: Group **Actions**



1 Exports the process values of the measuring point selected in the navigation area over a certain time area (time filter) as csv file
Configure time zone cultural area / language of the export file see Configuration of CSV Export Files
2 Active only when a file is selected in the > **Files and Reports** working area: exports the selected file

Group Links

Abb. 6-16: Group **Links**

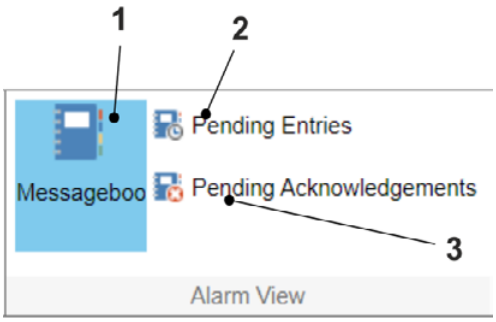
Opens the **Cross-Measurement Place Hydrograph Module** with extensive functions for the configuration of charts (additional service at extra charge)

Group Alarm View

The group is shown as soon as you open the **Alarms** view in the working area.

Here you can call up the message book entries of the selected measuring point to be displayed in the workspace and filter them at the same time. The selected option is highlighted blue.

Abb. 6-17: Group **Alarm View**



1 Calls up all history message book entries from the selected measuring point over the selected time area (time filter). These are message book entries with a time stamp in the past.

2 Calls up all pending message book entries of the selected measuring point. These are message book entries that are currently active (coming without leaving).

3 Calls up all pending acknowledgements of the selected measuring point. These are message book entries subject to acknowledgement that are not acknowledged.

6.2 Navigation Area

The navigation area is structured as follows:

- Overview on all measuring points created in the project. > **Measuring Points**
- Devices list containing all devices available in the project > **Devices**

In the navigation area you can

- call up data and information on a measuring point in the working area,
- create additional measuring points (licences required),
- link a device to a measuring point,
- create campaigns to group measuring points within the campaigns,
- move a measuring point to a different campaign.

Observe the following notes:

- The devices are created by NIVUS and are saved in NIVUS WebPortal for you. You must add these devices to your project. The device configurations in NIVUS WebPortal cannot be edited.
- If you wish to expand your project by additional devices you need to place an according order. As soon as you have received your order confirmation specifying the additional devices by email you can add these devices to the project.
- **A device must always be linked with a measuring point to enable the recorded device values to be transmitted to NIVUS WebPortal and to record the values there as measuring point values.**
- The both tabs are synchronised. When you switch over between **> Devices** and > **Measuring Points** the link of the last device / the last measuring point selected is called up each.
- The views in the working area always refer to the last selected measuring point. If in the navigation area the > **Devices** tab is opened and a device is selected (marked blue) then data and information on the linked measuring point is shown in the working area.
- The campaign **General** is available by default. As soon as you create a new measuring point this measuring point is assigned to the **General** campaign.

Related links

Activate Project Licence
Link Device to a Measuring Point
Create Campaign
Move Measuring Point
Edit Measuring Point Data
Add new device

6.2.1 Devices

6.2.1.1 Devices List

In the > **Devices** navigation area you will find the devices list containing all devices available for the project. Selecting a device here will indicate data and information on the linked measuring point in the working area.

Abb. 6-18: Navigation Area: Devices List

1 Selection menu for the navigation area
The selected tab is marked blue.

2 Full text search

3 Sort function

4 Devices List

5 Selected device (blue frame): the data on this device is shown in the working area

6 Device Information

7 Time of latest data transmission

Note: If the clock symbol is displayed in red, then the last data transmission was too far in the past.

Note: Here you can check the connection status of the device to NIVUS WebPortal. When the device has set up a connection to the NIVUS WebPortal and this connection is established, the time stamp is updated in the transmission cycle of the device.

8 Name of the measuring point the device is linked to

9 Symbol of the device type

10 Device name = serial number

Related links
Device data
Device Types
Link Device to a Measuring Point
Add new device

6.2.1.2 Device data

Device information can be indicated in the devices list as well as in the measuring points list. You can identify the type of device information by the symbols.

The according device values (process values of measuring point PVs) can be indicated optionally (menu option **View > Device Values**).

Tab. 6-8: Device Information Overview

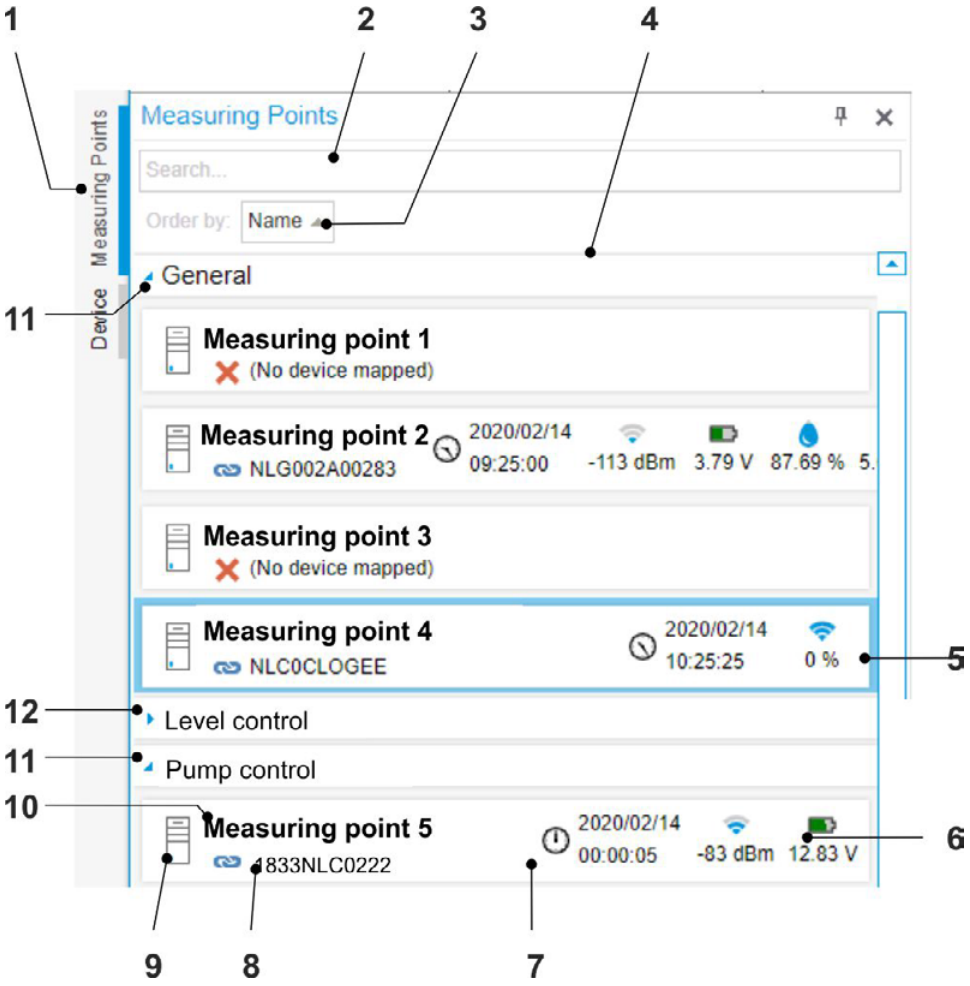
Representation	Device Information	Description	Device Value Unit
	Connection Status	Red: No Connection. Black: The device has set up a connection to the NIVUS WebPortal and this connection is established. If the unit values are displayed, then the time stamp is shown and updates itself in the unit's transmission cycle.	Date and time of latest data transmission
	Field strength with GSM data transmission	Strength of the signal transmitted by the unit (PV: GSM-Signal)	dBm
	Network Connection		-
	Power Supply: Battery / Reachargeable	Battery voltage (PV: Battery)	V
	Power Supply not from Battery / Rechargeable		-
	Temperature	Temperature of internal temperature sensor (PV: Temperature)	°C
	Humidity	Humidity (PV: Humidity)	%

6.2.2 Measuring Points

6.2.2.1 Measuring Points Overview

In the **> Measuring Points** navigation area you can find a measuring points overview containing all measuring points created in the project.

Abb. 6-19: Measuring Points Overview



1 Selection menu for the navigation area
The selected tab is marked blue.
2 Full text search
3 Sort function
4 Measuring points overview
5 Selected measuring point (blue frame): the data and information on this measuring point are shown in the working area.
6 Device data of the linked device (**8**)
7 Time of latest data transmission
8 Link to a device, the serial number of the device is shown
9 Symbol label of a measuring point
10 Name of measuring point
11 Campaign (= group of measuring points) open: the measuring points of the campaign are shown.
The campaign **General** is available by default. If you should require more campaigns then these must be created.
12 Campaign closed

Related links
Create Campaign
Move Measuring Point
Edit Measuring Point Data

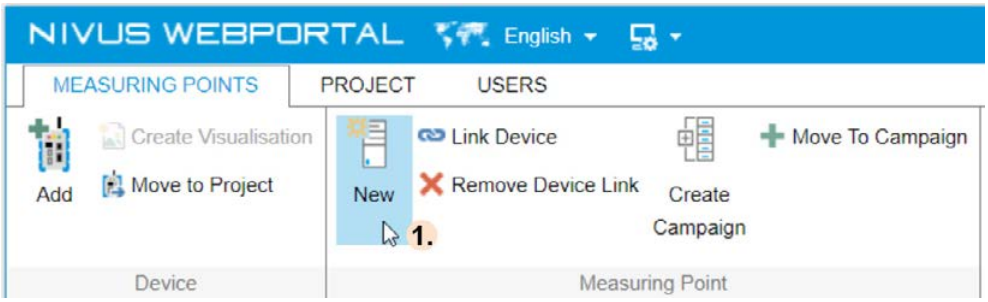
6.2.2.2 Create Measuring Point

Prerequisite(s)

✓ You have one free measuring point licence.
✓ You have administrator rights.

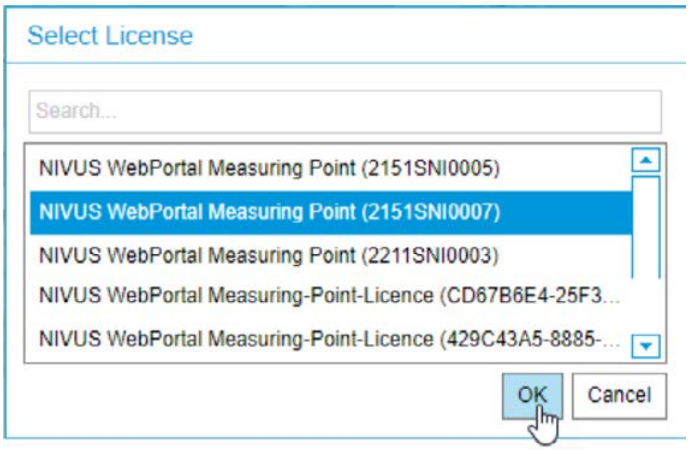
Procedure

1. Click **Measuring Point > New**



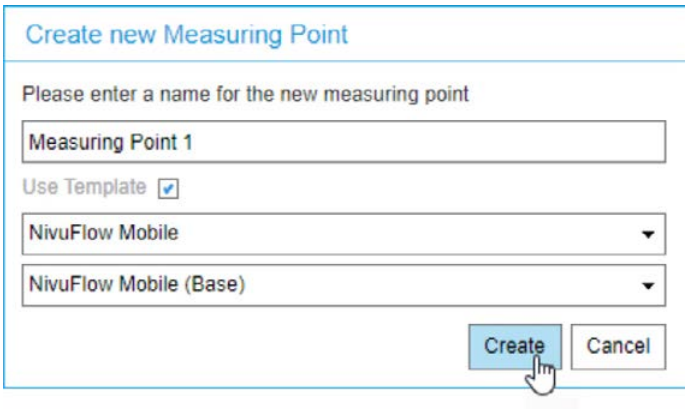
→ If a licence must be assigned to the measuring point, the **Select Licence** window opens, otherwise the **Create New Measuring Point** window opens.

2. Optional, assign licence if requested:



- Select Licence
- Confirm with **OK**

3. Configure Measuring Point:



- Enter the name of the measuring point
- Open the drop-down menu and select the device that is to be operated with the measuring point
- Open drop-down menu and select the type of device

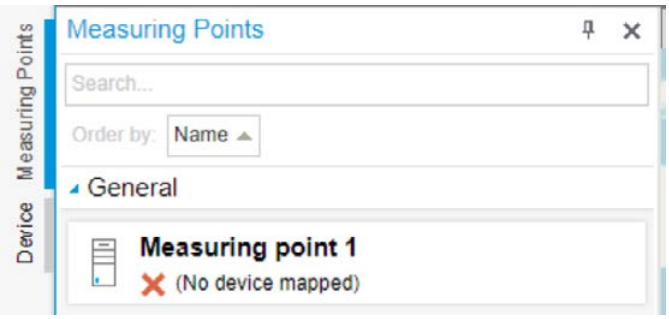
  ⓘ The process variables are automatically created to match the device type at the measuring point. The assignment measuring point - process variable is final and cannot be changed later. You can edit the individual process variables.
- Click **Create**

→ The success message opens.

4. Confirm with **OK**

Result

→ The new measuring point is created and is shown under the campaign **General** and is shown in the measuring points overview.



After Completing This Task

Assign device with the measuring point

Optional: Activate licence(s) for extra service(s) at the measuring point

Optional: Move measuring point to other campaign

6.2.2.3 Create Campaign

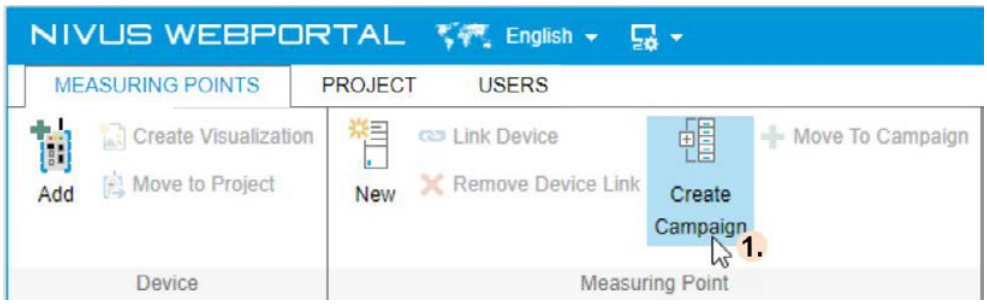
The campaign **General** is available by default. You can create further campaigns under which you can group the measuring points.

Prerequisite(s)

✓ You have administrator rights.

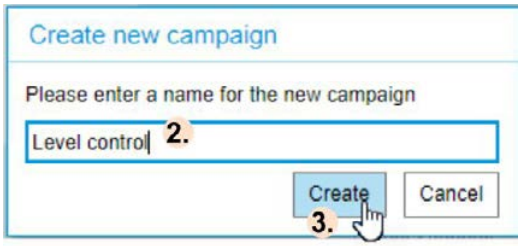
Procedure

1. Click **Measuring Point > Create Campaign**



→ The **Create new campaign** dialogue window opens.

2. Specify a nam for the campaign

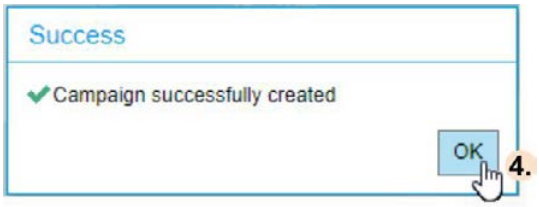


3. Click **Create**

→ The window will close.

→ The success message opens.

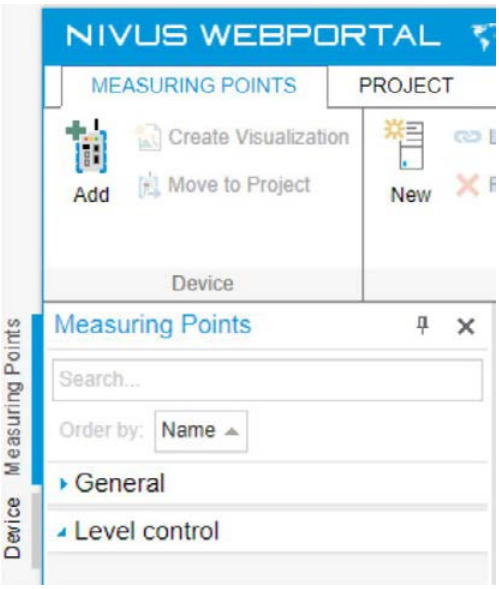
4. Confirm with **OK**



→ The success message closes.

Result

→ The new campaign is shown in the measuring point overview.



6.2.2.4 Move Measuring Point

You can move measuring points from one campaign to another one. The following sequence describes the basic procedure.

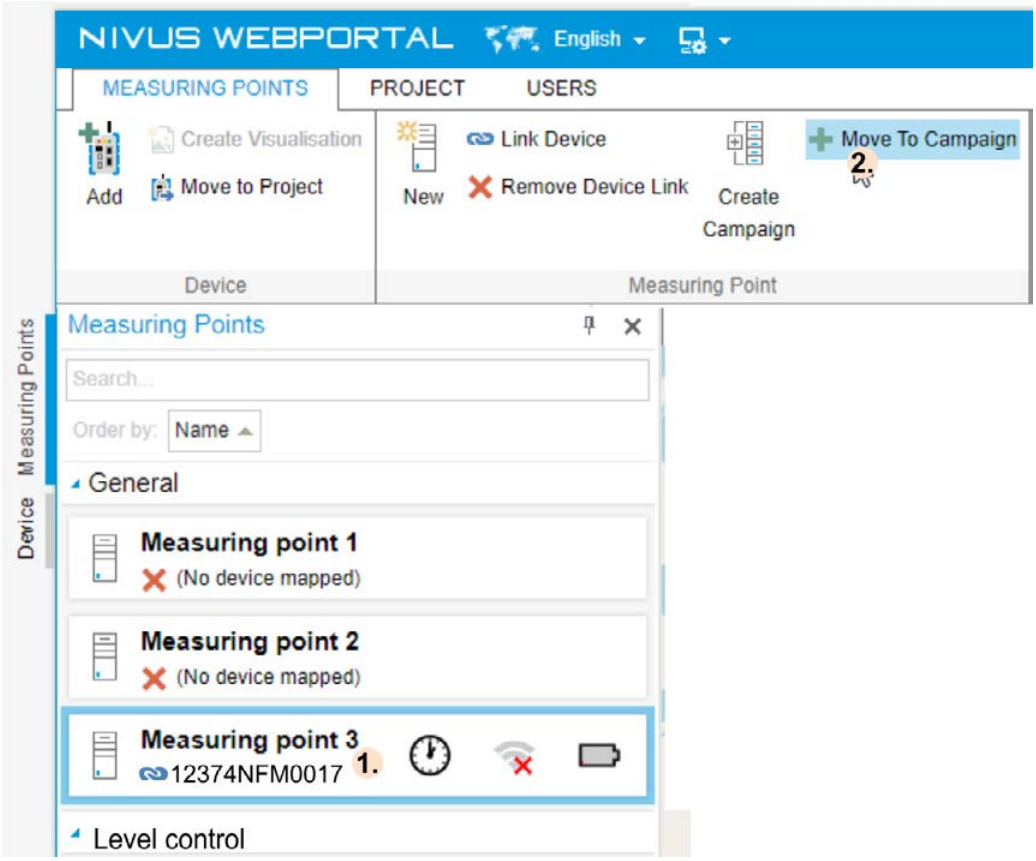
Prerequisite(s)

✓ You have administrator rights.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



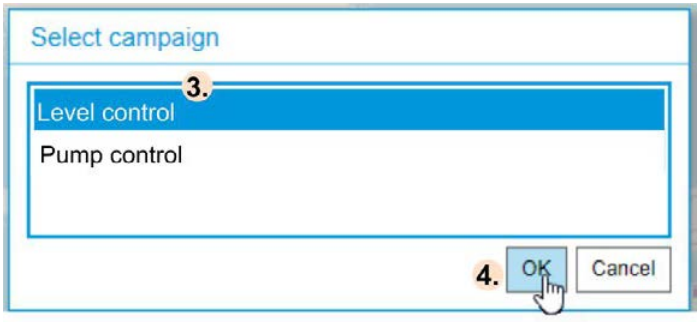
   → The measuring point is marked (blue frame).

   → The views in the working area show the data or information on the measuring point.

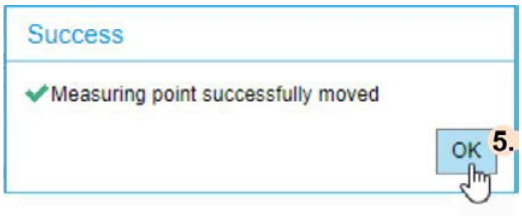
2. Click **Measuring Point > Move**

   → The **Select campaign** dialogue window opens.

3. Select campaign



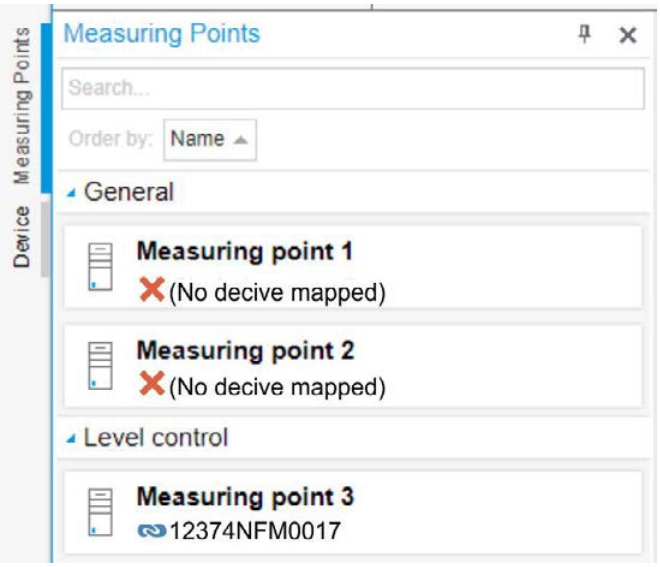
4. Confirm with **OK**
   → The window will close.
   → The success message opens.
5. Confirm with **OK**



   → The success message closes.

Result

→ The measuring point is moved to the previously selected campaign and is shown accordingly in the measuring point overview.



6.2.2.5 Rename Campaign

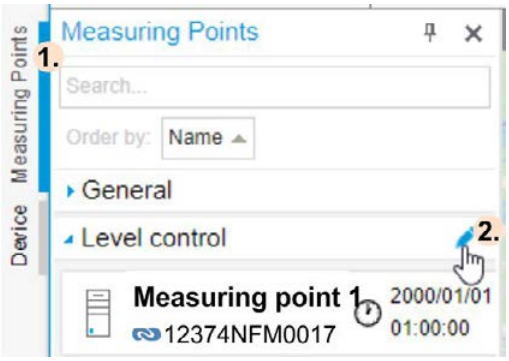
Prerequisite(s)

✓ You have administrator rights.

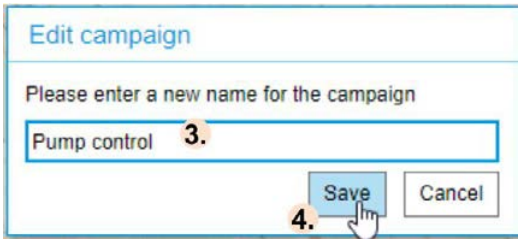
Note: The campaign **General** is available by default and cannot be edited.

Procedure

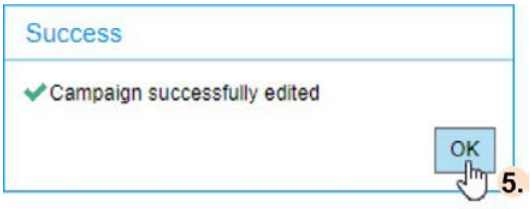
1. In the Navigation Area open the **Measuring Points** tab



2. Move the mouse over the campaign until the symbol appears and then click
   → The **Edit campaign** dialogue window opens.
3. Overwrite the name of the campaign



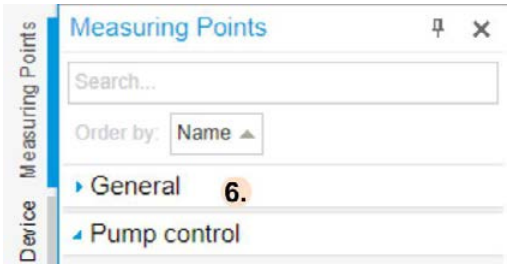
4. Click **Save**
   → The window will close.
   → The success message opens.
5. Confirm with **OK**



   → The success message closes.

Result

→ The campaign is shown with its new name in the measuring point overview.



6.2.3 Link Device to a Measuring Point

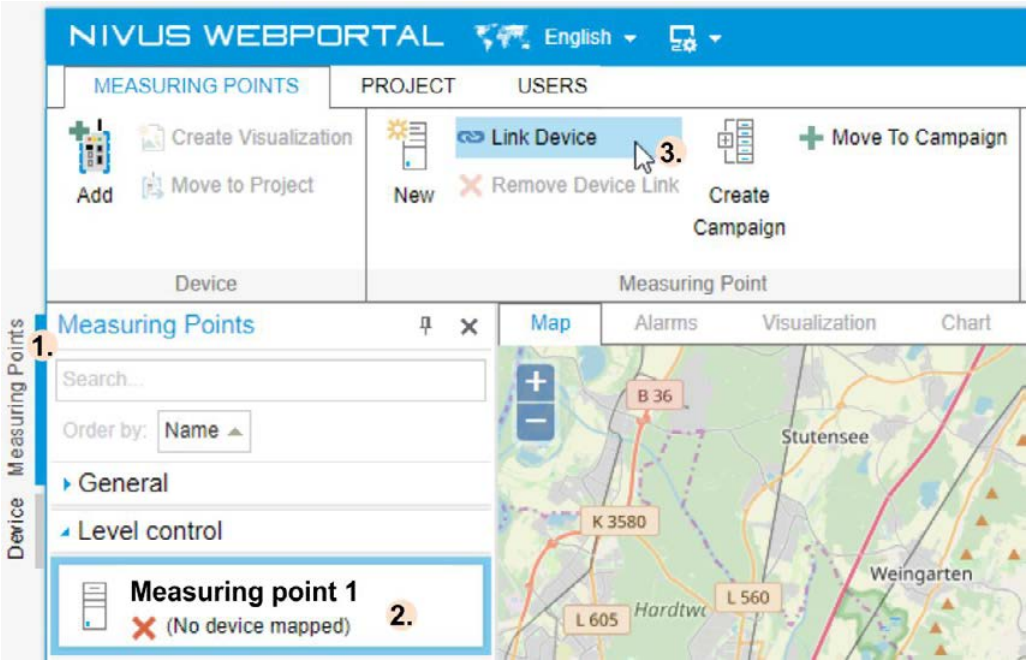
Prerequisite(s)

✓ You have administrator rights.

Note: You can link a device to a measuring point which already has an existing device - measuring point link. In such a case the original link will be removed and is replaced by the new link.

Procedure

1. In the navigation area open the **Measuring Points** tab



→ The measuring points overview is shown.

2. In the measuring point overview select the measuring point

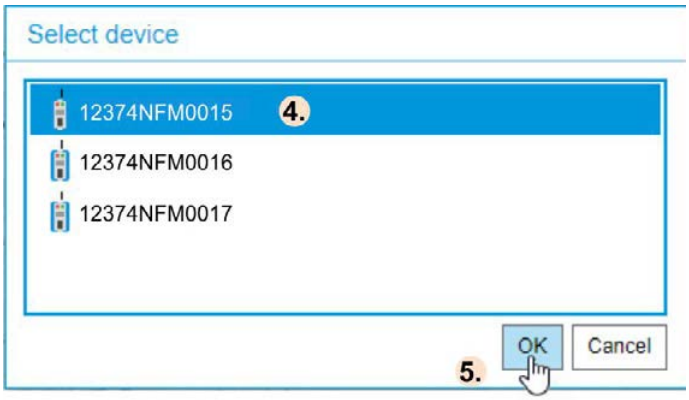
→ The measuring point is marked (blue frame).

→ The views in the working area show the data or information on the measuring point.

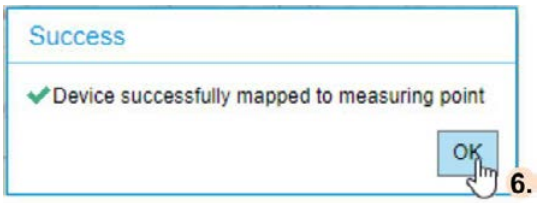
3. In the function bar click **Measuring Point > Link Device**

→ The **Select Device** window opens.

4. Select device



5. Confirm with **OK**
   → The **Select Device** window is closing.
   → The success message opens.
6. Confirm with **OK**

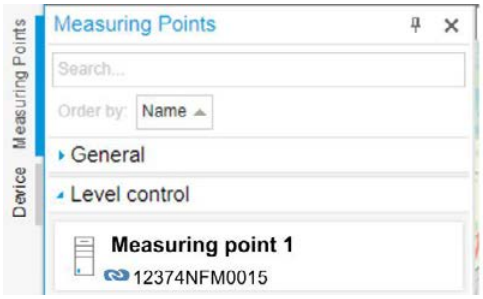


   → The success message closes.
   → The link is created but is not yet shown in the Navigation Area.
7. Reload NIVUS WebPortal to indicate the measuring point in the measuring point overview:
   Press **F5** on the keyboard and log in with the project again
   or use the user menu to log out and log in with the project again

Result

→ In the navigation area the link is shown in the measuring point overview as well as in the devices list.

→ Should the measuring point be already linked to a device this link then is removed.



6.2.4 Add new device

It is possible to add new devices to your customer project later. In such a case it is necessary to add the according devices to the project once to make them available in the devices list and to make sure all other functions are available in the NIVUS WebPortal. The following sequence describes the basic procedure.

Prerequisite(s)

✓ You have placed an order for an additional device at NIVUS and received the order confirmation by e-mail.
✓ You have administrator rights.

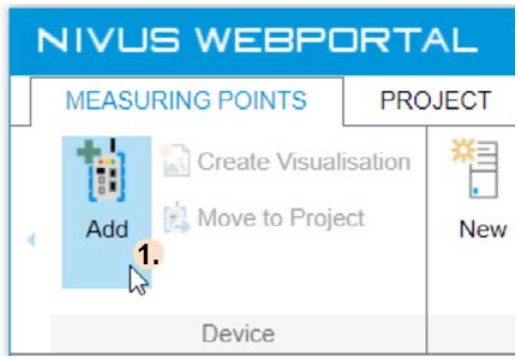
Note: You can create a new measuring point for the device directly while adding and create the according link between device and measuring point (see step **6**). In this case, the PVs for the device type are automatically created at the measuring point. Alternatively, you can link the device to an existing measuring point or to no measuring point.

Remember: If the device type and the measuring point configuration do not match exactly, the data for which there is no assignment of device input to a process variable will be lost.

Remember: If device and measurement place are not linked there is no data exchange possible between device and NIVUS WebPortal.

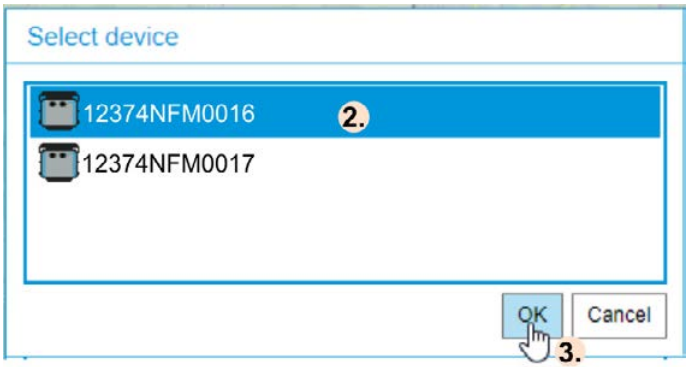
Procedure

1. In the Functions Bar click **Device > Add**



→ The **Select Device** window opens and shows the devices previously not used in any project.

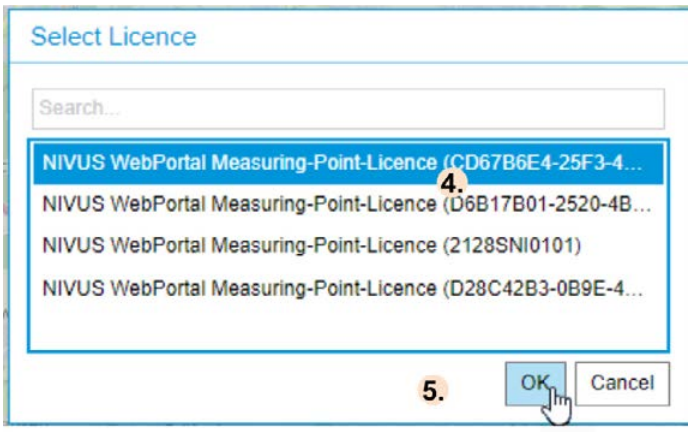
2. Select device



3. Confirm with **OK**

→ If necessary, the **Select Licence** window opens, otherwise the **Select Measuring Point** window opens.

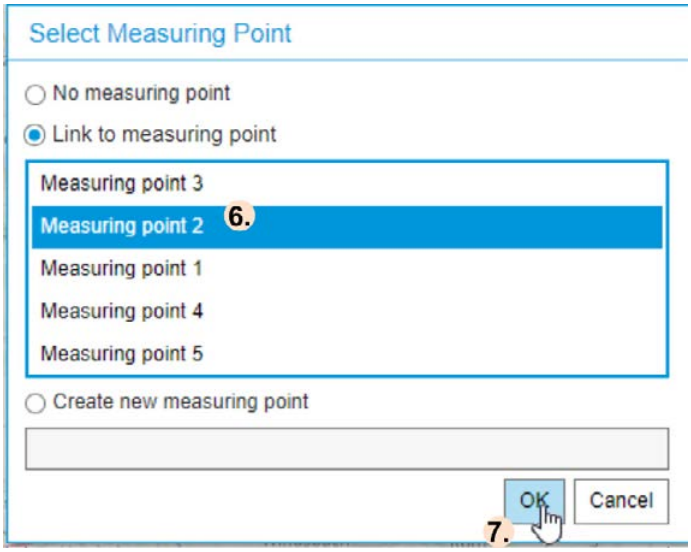
4. Optional step, only available if required: Select any licence from the list to assign it to the device



→ The **Select measuring point** window opens.

5. Confirm with **OK**
6. Edit the device-measuring point link using the following options:

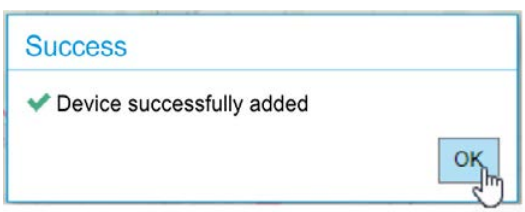
Link to	Procedure
of an existing measuring point	Activate **Link to measuring point** and select measuring point.
of a new measuring point	Activate **Create measuring point** and specify a measuring point name in the input field below.
of no measuring point	Activate **No measuring point**.



7. Confirm with **OK**

→ Device and possibly measuring point are created (loading time approx. 1 - 2 min). A success message is shown subsequently.

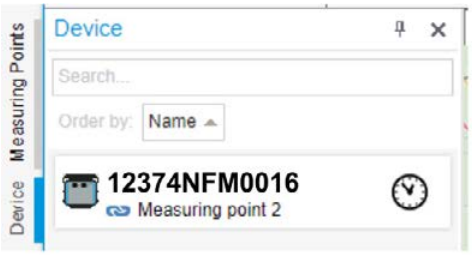
8. Confirm with **OK**

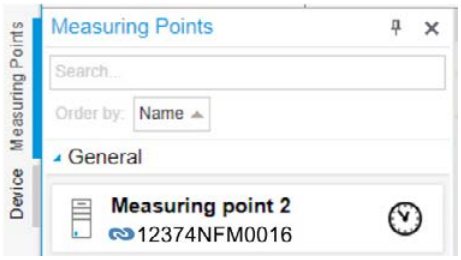


Result

→ The new device is shown in the devices list.

→ A created link between device and measuring point is indicated in the devices list as well as in the measuring points overview.





6.2.5 Shift Device

Should you have access to multiple projects then you can shift devices between the projects. The following sequence describes the procedure.

Prerequisite(s)

✓ You have administrator rights.

Note: If for the target project there is a not yet activated measuring point licence available it is possible to create a new measuring point for the device directly while shifting and to create the according link between device and measuring point (see step **6**). In this case, the PVs for the device type are automatically created at the measuring point. Alternatively, you can link the device to an existing measuring point or to no measuring point.

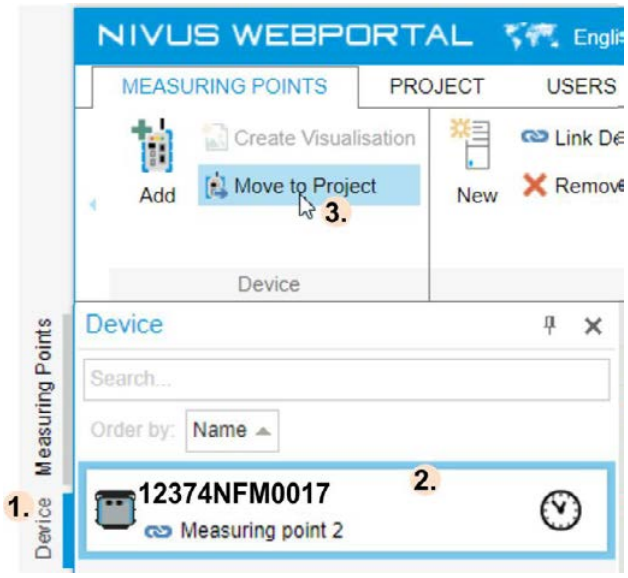
Remember: If the device type and the measuring point configuration do not match exactly, the data for which there is no assignment of device input to a process variable will be lost.

Remember: If device and measuring point are not linked there is no data exchange possible between the device and NIVUS WebPortal.

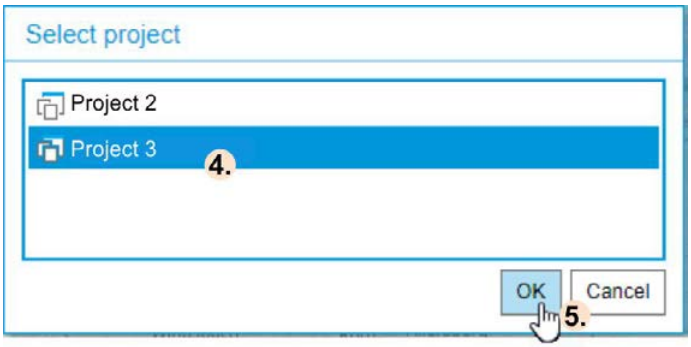
Note: Note that activated licences for additional services at the measuring point are part of the measuring point. If a device is shifted, then these additional services remain at the original measuring point in the source project and are not shifted with the device to the target project.

Procedure

1. In the navigation area open the **Devices** tab

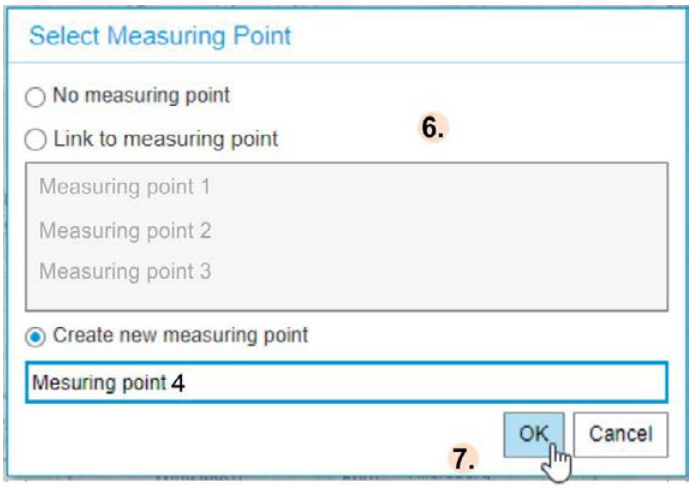


2. In the navigation area select the device
   → The device is marked (blue frame).
3. Click **Device > Move to Project**
   → The **Select project** window opens.
4. Select target project

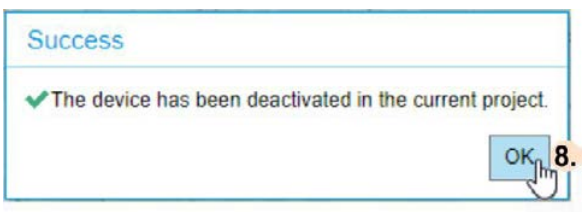


5. Confirm with **OK**
   → The **Select measuring point** window opens.
6. Edit the device-measuring point link using the following options:

Link to	Procedure
of an existing measuring point	Activate **Link to measuring point** and select measuring point
of a new measuring point	Activate **Create measuring point** and specify a measuring point name in the input field below
of no measuring point	Activate **No measuring point**



7. Confirm with **OK**
   → The success message opens.
8. Confirm with **OK**



   → The device is deactivated in the source project , the change is not yet shown in the navigation area, however.

9. Reload NIVUS WebPortal to indicate the device changes in the source project and in the target project:
   Press **F5** on the keyboard and log in with the NIVUS WebPortal again
   or use the user menu to log out and log in with the NIVUS WebPortal again

Result

→ The device is removed from the source project.

→ In the target project the shifted device is shown in the devices list.

→ Once a link between device and measuring point has been created in the target project, this is shown in the devices list as well as in the measuring points overview.

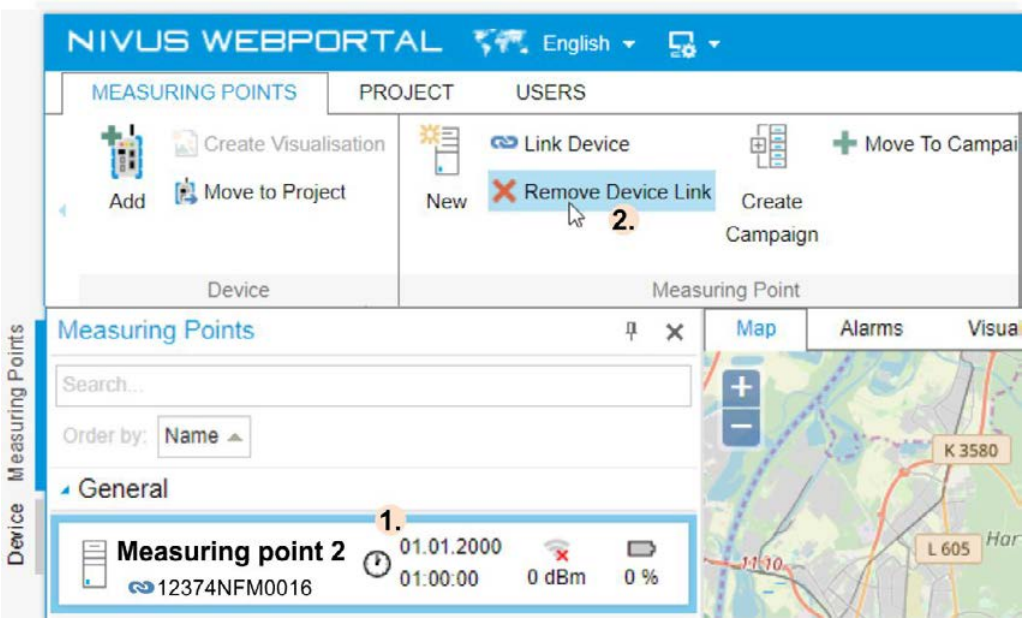
6.2.6 Remove Measuring Point - Device Link

Prerequisite(s)

✓ You have administrator rights.

Procedure

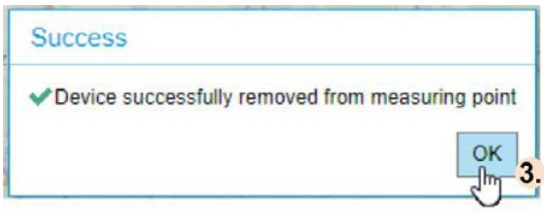
1. In the navigation area select the measuring point - device link:
   In the devices list select the device with the respective link
   or In the measuring point overview select the measuring point with the respective link



→ The device / the measuring point is marked (blue frame).

2. In the functions bar click **Remove Device Link**
   → The success message opens.

3. Confirm with **OK**



→ The success message closes but the change is not yet shown in the Navigation Area, however.

4. Reload NIVUS WebPortal to show the device changes:
   Press **F5** on the keyboard and log in with the NIVUS WebPortal again
   or use the user menu to log out and log in with the NIVUS WebPortal again

Result

→ The measuring point - device link is removed and the change is shown in the measuring point overview as well as in the devices list.

6.3 Working Area

In the working area you can call up and edit detailed data and information of the measuring points created in the project.

You can call up various views in the working area.

The following views are available:

Tab. 6-9: Views in the Working Area

View	Refers to	Description	Remarks
Map	all measuring points created in the project.	If the coordinates are saved: indication of the measuring point locations	Standard view to open the NIVUS WebPortal.
Alarms	the measuring point selected in the navigation area.	Display of Message Book Entries	Optionally available extension module (at extra charge and for authorised users only).
Visualisation	the measuring point selected in the navigation area.	Visualisation of measuring point values (measuring point PVs) in a process image	Optionally available extension module (at extra charge and for authorised users only).
Hydrographs	the measuring point selected in the navigation area.	Representation of measuring point values as hydrographs in a chart	Optionally available extension module (at extra charge and for authorised users only).
Log	the device selected in the navigation area.	Log Data	Log data is created for NivuFlow Mobile and Nivu Flow devices.
Measuring point configuration	the measuring point selected in the navigation area.	Option to indicate and to edit measuring point data (incl. measuring point PVs), configuration of hydrographs and configuration of templates for the automated creation of reports (hydrograph reports, event reports, DWEA event reports)	To edit the sub-sections **Hydrographs** and **Hydrograph Report** the extension module **Hydrographs** must be unlocked. To edit the sub-sections **Event Report** and **DWA Event Report** the extension module **Files and Reports** must be unlocked.
Files and Reports	the measuring point selected in the navigation area.	Option to indicate and export the linked files	Optionally available extension module (at extra charge and for authorised users only).
Licences	the measuring point selected in the navigation area.	Indication of licenses for all purchased services and option to activated these	
Remote Access	the device selected in the navigation area.	Remote access to devices with remote access function	Optionally available additional service (subject to a charge)

Note: When you open the NIVUS-WebPortal only the > **Map** view is available in the working area. Select any measuring point from the navigation area to call up all further available views. You are not authorised for the hidden views. If a measuring point is greyed out there is no respective licence activated for this measuring point.

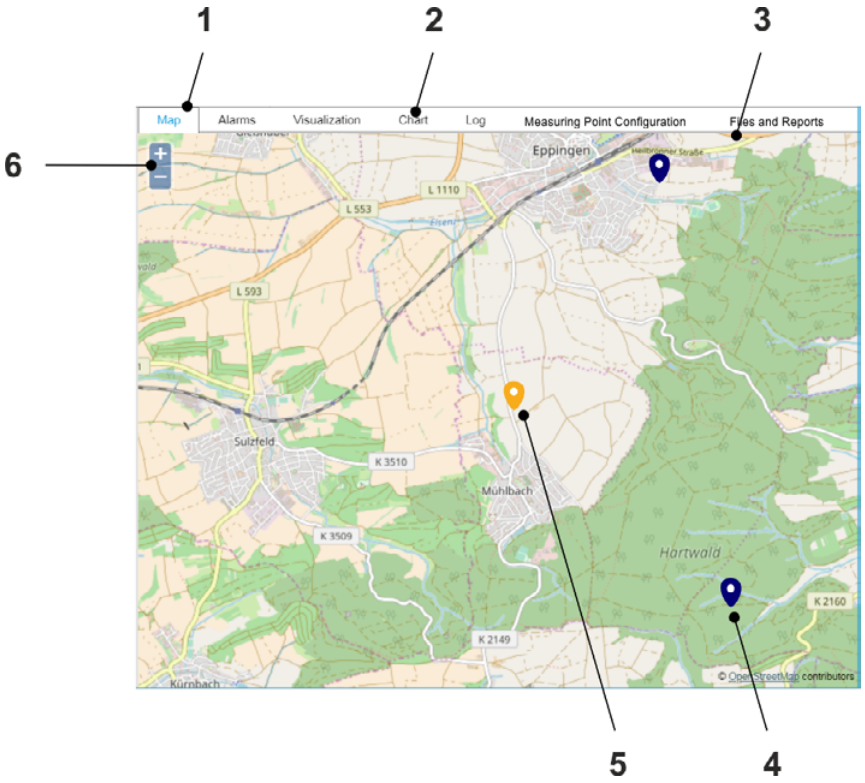
6.3.1 Map

6.3.1.1 Overview Map View

The **> Map** view shows within a freely configurable map section the positions of the measuring points of which the coordinates are saved.

The measuring point coordinates are transmitted to NIVUS WebPortal either by the device (NLG and NFM) or you save them in this view > **Measuring Point Configuration**.

Abb. 6-20: Working Area: > **Map** View



1 Opens the > **Map** view
2 Selection menu for the views
3 Selected map section
4 Marks the position of a measuring point
5 Marks the position of the measuring point selected in the working area

Note: If you select a measuring point / a device in the navigation area the according mark will be centered on the map and its colour changes to yellow.

Note: If you select the marking of a measuring point on the map it will be centered on the map and its colour changes to yellow. The according measuring point is marked in the navigation area (blue label).

6.3.1.2 Change Map Section

Procedure

1. If required, zoom the map section to the desired level:

   Move the mouse cursor over the overview map and use the mouse wheel

   or click the **+** or **-** buttons in the overview map to zoom step by step

2. Pan the map section if required

- Move mouse over the map section and click left

  → The mouse cursor changes to crosshairs.

- Pan the map section with the left mouse key pressed

6.3.2 Alarms

In the **> Alarms** view (= Message Book) the message book entries from the selected measuring point are shown.

Prerequisites:

- The user is authorised for the **Alarms** sub-section.
- Data was or is transmitted to the NIVUS WebPortal from the selected measuring point.
- The process variables are configured accordingly (message thresholds and / or reactions).

Related links

Path to the Message Book Entry

6.3.2.1 Basics of Message Book Entries

Message book entries may vary in terms of message type and status. You can filter the message book entries in the message book table accordingly.

6.3.2.1.1 Message Types

Message book entries triggered by process variables vary in terms of message types. The message type results from the reaction that causes the message book entry.

The message type is symbolically labelled as follows:

Tab. 6-10: Message Types

Labelling	Message Type
	Warning Message
	Error Message
	Operating message
None	

6.3.2.1.2 Status of Message Book Entries

The status of a message book entry refers to its acknowledgement requirement. Message book entries triggered by a process variable may be subject to acknowledgement. The requirement to acknowledge a message book entry results from the reaction that causes the message book entry.

The status of message book entries is symbolically labelled as follows:

Tab. 6-11: Status of Message Book Entries

Labelling	Status
	Subject to acknowledgment, not acknowledged
	Subject to acknowledgement, acknowledged
None	Not subject to acknowledgement

6.3.2.2 Overview Alarms View

The > **Alarms** view is subdivided into 2 sections.

The **Message Book Table** always shows message book entries from the measuring point selected in the navigation area over a defined time range (time filter). You can narrow down this view further.

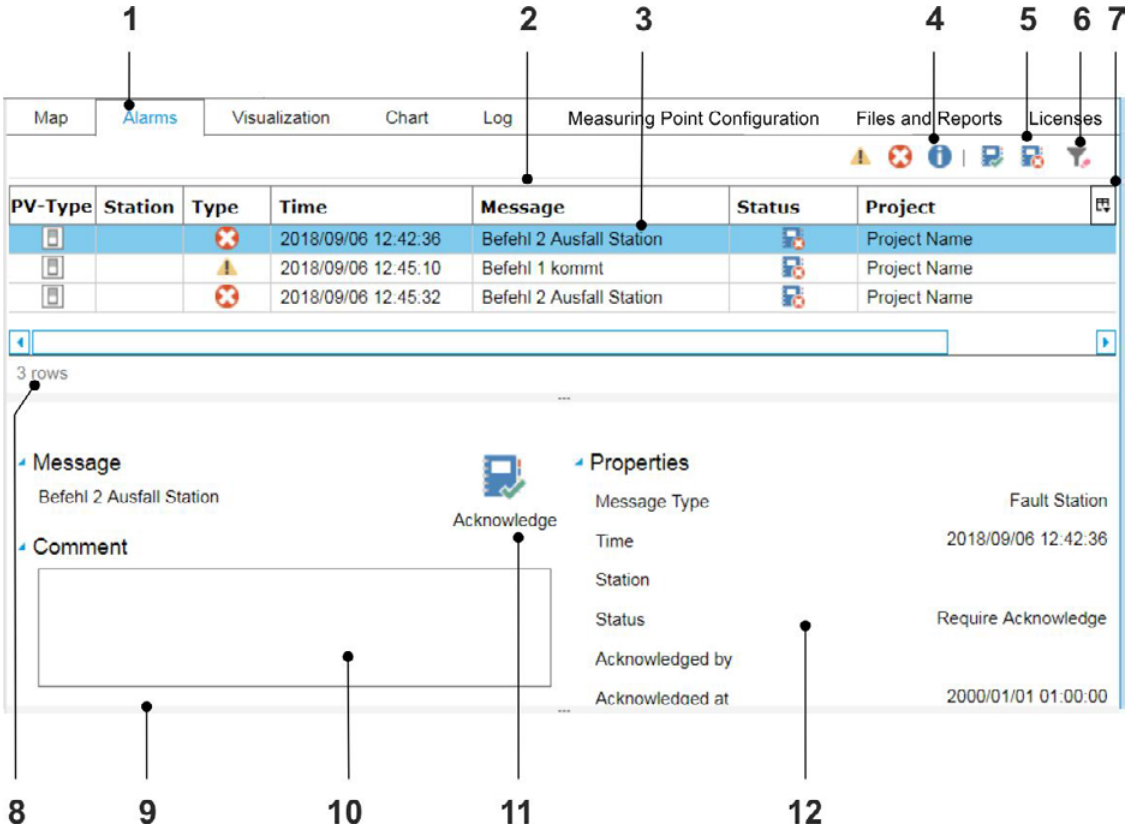
- In the function bar > **Alarms View** you can optionally narrow down the screen to
  - the pending message book entries. These are message book entries that are currently active (coming without leaving)
  - the pending acknowledgements. These are messages subject to acknowledgement that are not acknowledged.
- Using the filter function in the working area, you can also filter by
  - Message Type
  - Status of Message Book Entries

Important: Limit value violations are valid for 30 minutes. This means that as soon as a limit value violation has occurred but the according process values cannot be transmitted to the NIVUS WebPortal instantly due to an interrupted connection and hence need to be reloaded later, then the according message book entries will be created and shown in the message book table for a maximum of 30 minutes. No more message book entry will be created once this period has expired.

If a message book entry is selected in the message book table (marked blue) the respective **Detail View** is shown:

- Indication of message and properties of the message book entry
- Options to acknowledge and to comment a message book entry subject to acknowledgement

Abb. 6-21: Working Area: > **Alarms** View



1 Selection menu for the views, here: the > **Alarms** view is opened.

2 Message book table (= overview of message book entries) with the columns:
PV Type: Symbol label of the PV type that has created the message book entry
Station: If the message book entry is part of a station: station name
Name: Name of the process variable that has created the message book entry
Message Type: Symbol label of the message type
Time: Time stamp of the message book entry
Message: contains the device name and possibly more information
Status: Only for message book entries subject to acknowledgement: Symbol label of message status (acknowledged / not acknowledged)
Comment: Comment created during acknowledgement (input field (**10**))
ID (available only if **Alarms View > Pending Entries Einträge** is selected in the functions bar): ID of the message book entry, provided by the system
Project: Project name
Plant: Should the device that has created the message book entry be part of a plant: Name of the plant
Path: Location of the process variable in the data project

3 Selected message book entry shown in the detail view (**9**)

4 Filter by message type (warning message, error message, operating message)

5 Filter by status (acknowledged, not acknowledged)

6 Resets the filters

7 Opens the window to show / hide the columns

8 Number of data sets in selected time range (time filter)

9 Detail view of the selected message book entry
If you select an entry in the message book table the respective detail view is shown.

10 Input field for a comment to be saved with acknowledgement. The comment appears in the message book table, column **Comment**.

11 Shown only for message book entries subject to acknowledgement that are not acknowledged: acknowledges the message book entry

Note: If you have narrowed down the message book table to the **pending acknowledgements** and you acknowledge a message book entry here, then this message book entry disappears from the message book table. This message book entry is then only displayed under **Alarms View > Message Book**.

12 Properties of the selected message book entry including the specifications

Message Type

Time: Time stamp of the message book entry

Station: If the message book entry is part of a station: station name

Status: Status of the message book entry

Acknowledged By: First name and second name of the user who acknowledged the message book entry

Acknowledged On: Time stamp of acknowledgement

6.3.2.3 Filtering Options for Message Book Entries

Filtering Criteria for Message Book Entries:

- Time Stamp of Message Book Entries
- Active-Status of Message Book Entries
- Message Type
- Status of Message Book Entries

This results in the following options for filtering the message book entries:

Tab. 6-12: Filtering Options for Message Book Entries

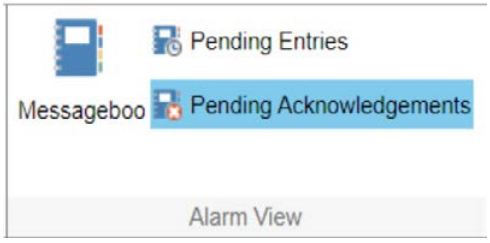
Option	Procedure
Call up the message book entries of a measuring point and at the same time filter them according to the pending (= active) message book entries	Tab **Measuring Points** > Navigation Area: select measuring point > view **Alarms** > Functions bar: Group **Alarms View > Pending Entries** > Functions bar: set **Time Filter**
Call up the message book entries of a measuring point and at the same time filter them according to the pending acknowledgements	Tab **Measuring Points** > Navigation Area: select measuring point > view **Alarms** > Functions bar: Group **Alarms View > Pending Acknowledgements** > Functions bar: set **Time Filter**
Call up historical message book entries of a measuring point over a specific time range and then filter them	Tab **Measuring Points** > Navigation Area: select measuring point > view **Alarms** > Functions bar: Group **Alarms View > Message Book** > Functions bar: set **Time Filter** > Working area: filter according to message type    or status 

6.3.2.4 Call up Message Book Entries

You can call up the message book entries shown in the table in the workspace and filter them at the same time. In this way, you can specifically narrow down the message book entries displayed. The following sequence describes the possible options and the corresponding procedures to call up certain message book entries.

Procedure

1. In the measuring point overview select the measuring point
   - ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   - → Measuring point is highlighted (blue frame).
   - → All views in the working area show the data or information on the measuring point.
2. Open **Alarms** tab
   - → In the function bar the menu option **Alarm View** is shown.
   - → The currently selected and displayed option is highlighted blue.



3. Call up desired Message Book Entries:

Target	Procedure
Call up all message book entries over a specific time range.	Function Bar > **Alarm View > Message Book** Function Bar > **Time Filter** > narrow down time range Optional: In the working area filter by message type Optional: In the working area filter by status
Call up all message book entries that are currently active (coming without leaving).	Function Bar > **Alarm View > Pending Entries** Function Bar > **Time Filter** > narrow down time range
Call up all message book entries subject to acknowledgement that are not acknowledged.	Function Bar > **Alarm View > Pending Acknowledgements** Function Bar > **Time Filter** > narrow down time range

Result

→ The message book table is reloaded and the selected message book entries are called up.

6.3.2.5 Sorting Options of Message Book Entries

By default, the message book entries are sorted in ascending order by time stamp.

You can change the order in which the message book entries are displayed depending on one feature at a time. To do this, click on the corresponding column heading and then on the symbol ▲ or ▼.

Tab. 6-13: Sorting Order of individual Columns

Column	▲ ascending	▼ descending
Time	current message book entry > oldest message book entry	oldest message book entry > current message book entry
Station **Message** **Status** **Plant**	alphabetical Z > A	alphabetical A > Z

6.3.2.6 Acknowledge and Comment Message Book Entry

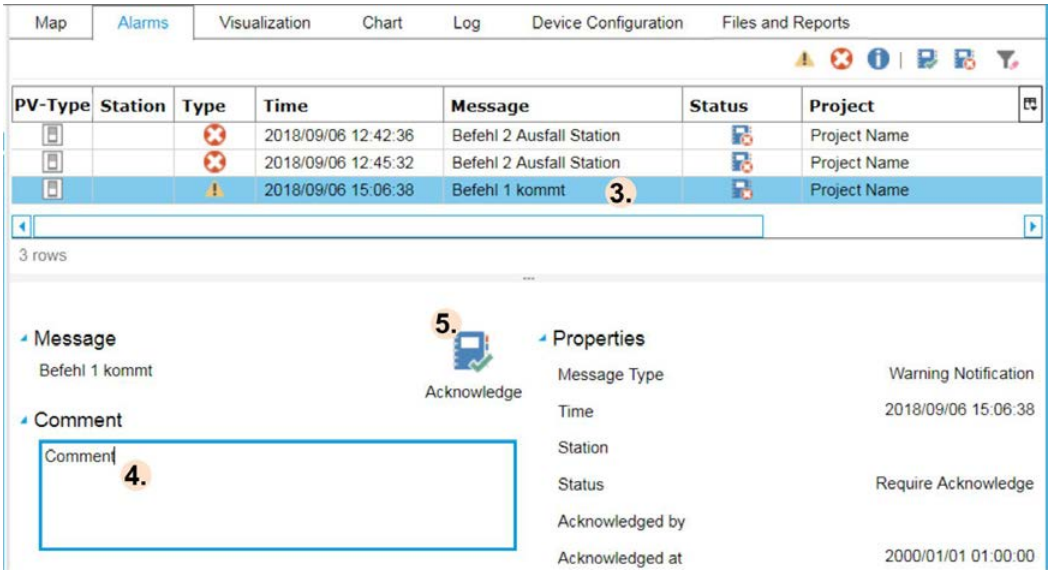
You can acknowledge and optionally comment device-specific message book entries subject to acknowledgement directly in the NIVUS WebPortal. The following sequence describes the procedure.

Prerequisite(s)

✓ A measuring point is selected in the Navigation area (highlighted blue).
✓ The > **Alarms** view is opened in the working area.

Procedure

1. Optional: call up Function Bar: Group **Alarms View > Pending Acknowledgements** to reduce the number of message book entries shown
2. Optional: filter message book entries by message type
3. In the message book table select a message book entry



→ The message book entry is marked (highlighted blue).
→ The detail view of the message book entry is shown.

4. Specify comments if required
5. Click **Acknowledge**

Result

→ The message book entry is acknowledged and commented.

Note: If you have narrowed down the message book table to the **pending acknowledgements** and you acknowledge a message book entry here, then this message book entry disappears from the message book table. This message book entry is then only displayed if you select in the functions bar > **Alarms View > Message Book** in the respective time range.

6.3.3 Visualisation

In the **> Visualisation** view the device values of the measuring point (measuring point PVs) selected in the navigation area (marked blue) are visualised in a process image.

Preconditions:

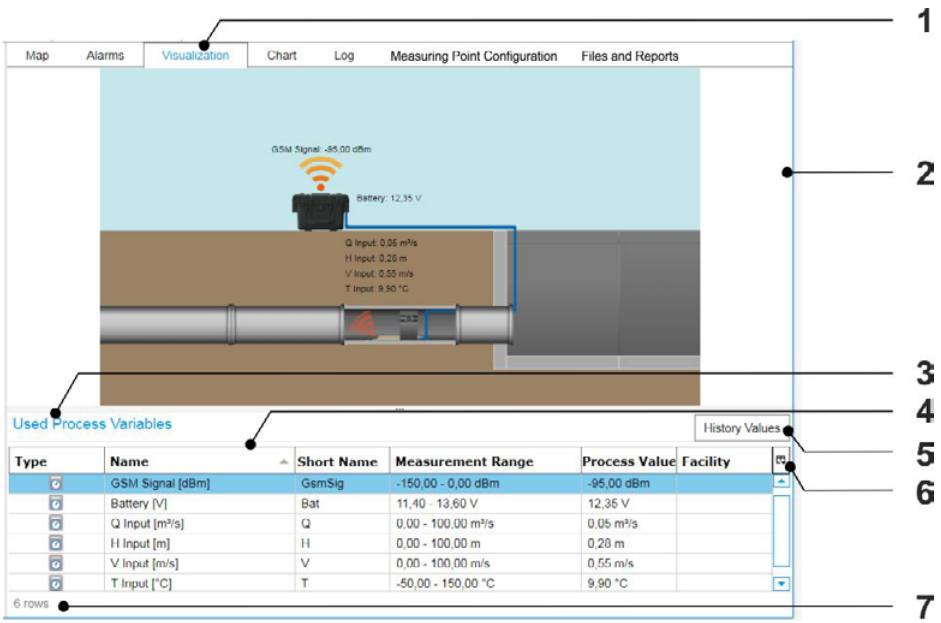
- The user is authorised for the **Visualisation** sub-section.
- The **Visualisation** module is unlocked for the selected measuring point (optional extension module available at extra charge).
- A process image for the measuring point is available (additional service Art.-No. SNI0BILD100000).
- There are device values available.

The path to the process image:

- If you acquire the additional service Process Image (Art.-No. SNI0BILD100000) the process image by NIVUS will be loaded into the customer project and then is instantly available for all authorised users.

6.3.3.1 Overview Visualisation View

Abb. 6-22: Working Area: **> Visualisation** View



1 Selection menu for the views, here: the **> Visualisation** view is opened.

2 Visualisation of measuring point PVs in a process image

3 PV area: the PV area is indicated only when **View > PV Table** is activated (highlighted blue) in the function bar.

4 PV table with containing all PVs used in the visualisation and the columns
Type: Labelling of the PV type
Name of the process variable
Short Name of the process variable
Measurement Range of the process variable
Process Value
Facility: if the device is assigned to a facility: name of the facility

5 Calls up the selected process variables (highlighted blue) in the chart view
In the chart view there are the following functions available: time filter, mathematical operations (total and integral)

6 Opens the window to show / hide individual columns

7 Number of data sets in the PV table

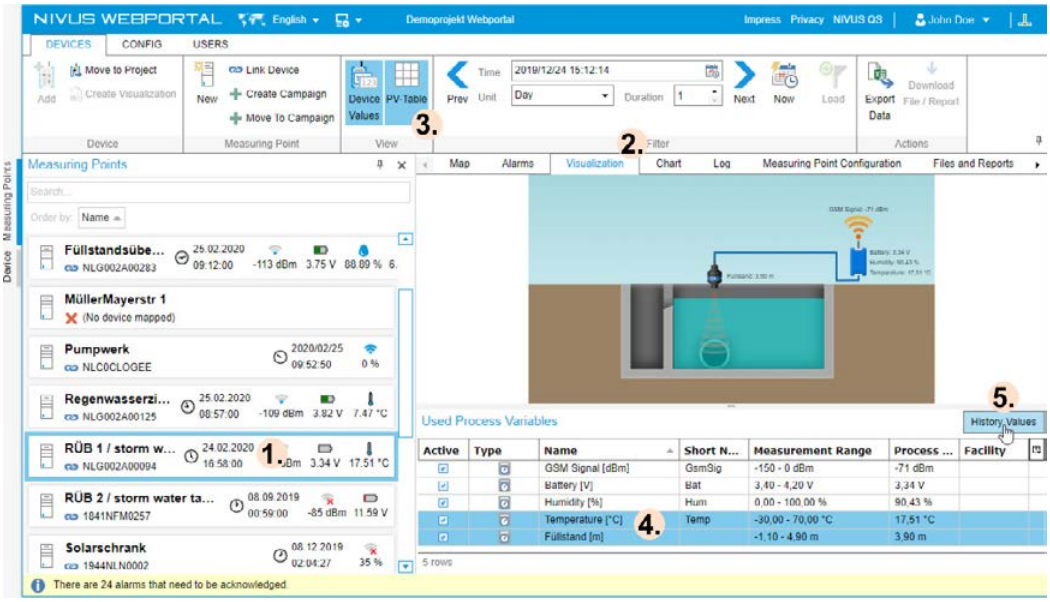
6.3.3.2 Call Up History Values

The following sequence describes how to call up historical process values of one or more measuring point PVs in a chart.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



   → The measuring point is marked (blue frame).

   → The views in the working area show the data or information on the measuring point.

2. In the working area open the **Visualisation** tab
3. If required call up in the PV area: in the function bar click **View > PV Table**

   → In the function bar the function is highlighted blue and the PV overview is shown in the working area.

4. Select process variable(s)

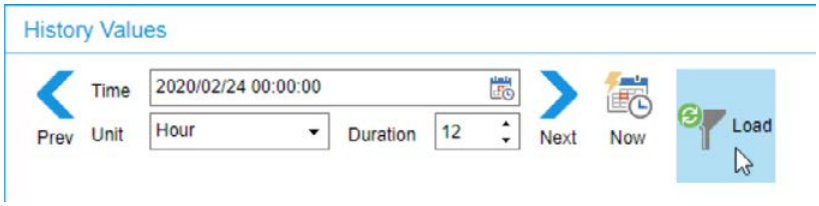
   → The process variable(s) is / are marked (highlighted blue).

5. Click **History Values**

   → The **History Values** window (chart) is opened. The selected process variable(s) is / are created in the chart.

6. Specify time range

   - Open the calendar and select the end time of the desired time range



   - Select unit and duration of the desired time range
   - Click **Load**

Result

→ The chart will be redrawn covering the selected time range.

Tip: In this view you can use all other chart functions (mathematical operations, zoom time range).

6.3.4 Hydrographs

In the > **Hydrographs** view the device values transmitted from a measuring point (measuring point PVs) are represented as chart.

Preconditions:

- The user is authorised for the **Hydrograph** sub-section.
- There are device values available.

Per default a chart refers to a measuring point and shows the PVs of this measuring point as graph. You can configure the chart in the **> Measuring Point Configuration > Hydrographs** tab.

More options for evaluation and representation can be implemented as additional service at extra costs. If you should require corresponding services please contact NIVUS.

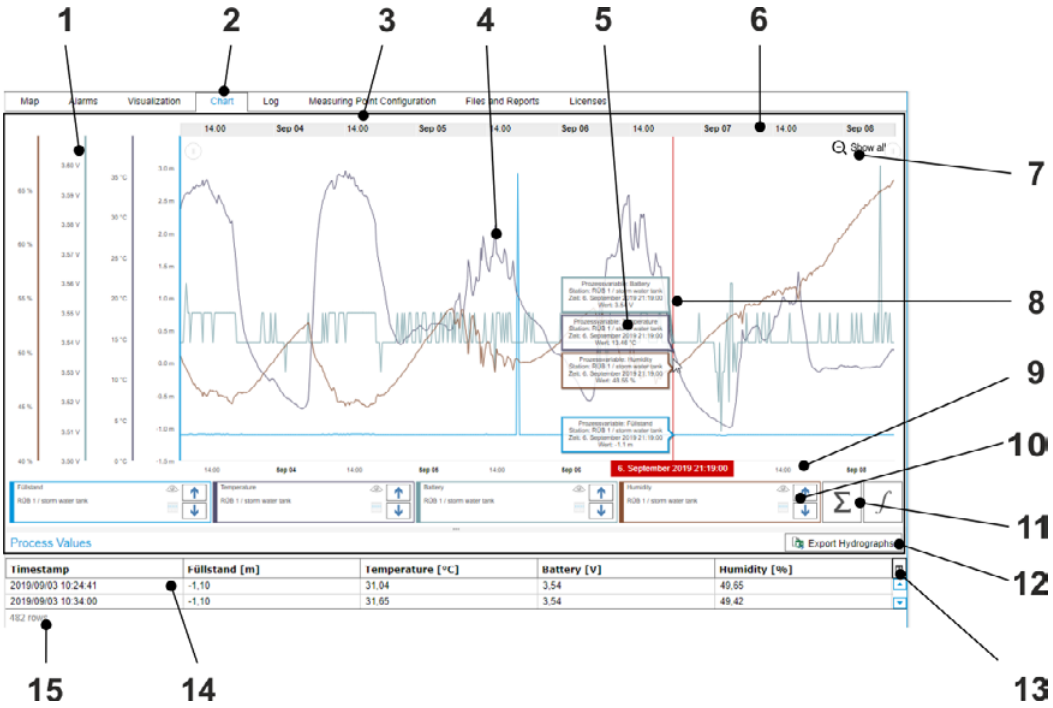
Related links

Overview Configuration of Hydrographs

6.3.4.1 Overview Hydrographs View

The figure below shows the **Hydrographs** view by using an example chart. The options shown depend on the configuration and hence may vary.

Abb. 6-23: Working Area: > **Hydrographs** View



1 Y-Axe(i)s = Value Axe(i)s, relate to entire chart or one graph each

2 Selection menu for the views, here: the > **Hydrographs** view is opened.

3 Chart

4 Graph of a process variable

5 Marker: value description of the process variable at the point in time where the mouse cursor is

6 Scroll bar, here: time range defined by using the time filter is narrowed further

7 Visible only when the indicated time range is narrowed by using the scroll bar: resets the time range to the time filter

8 Point in time where the mouse cursor is

9 X-Axis = Time Axis

10 PV legends: details on all process variables shown in the chart as graph
Click on legend: highlights the graph within the chart
Detailed description see Fig. PV Legend

11 Activates / deactivates the mathematical functions totalise or calculate Integral (activated = highlighted blue)

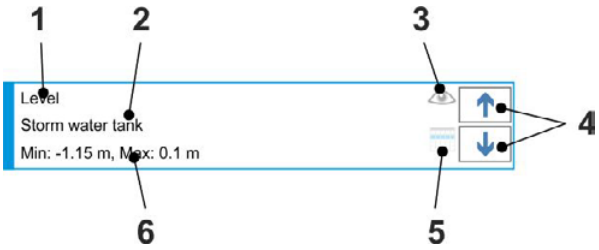
12 Exports the process values of the hydrographs in the selected chart over a certain time area (time filter) as csv file

13 Opens the column selection to show / hide the columns in the process values overview (**14**) ein- / auszublenden

14 Process values overview: overview on all archived process values of the measuring point PVs created in the chart covering the selected time range (time filter) using the **Time Stamp** column and one extra column for each pro process variable
The PV area is indicated only when **View > PV Table** is activated (highlighted blue) in the function bar.

15 Number of data sets in selected time range (time filter)

Abb. 6-24: PV Legend



1 Name of the process variable
2 Name of higher measuring point
3 Shows / hides the graph in the chart
4 Optional: moves the graph vertically within the chart
5 Function available only for service technicians
6 Optional: statistic values

Related links
Overview Configuration of Hydrographs

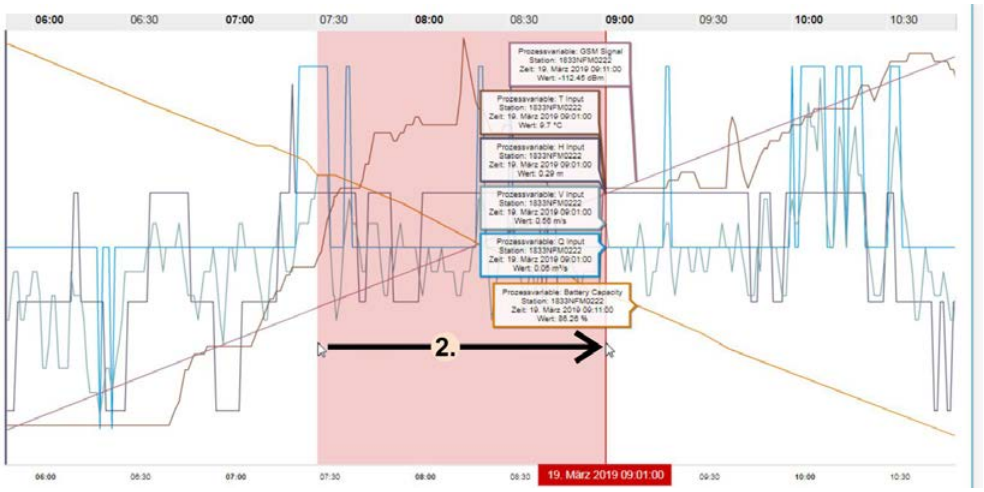
6.3.4.1.1 Zoom Time Range

Use the zoom function to narrow down the indicated time range of the chart while viewing. To do so use the scrollbar or the mouse.

Zoom with the Mouse

Procedure

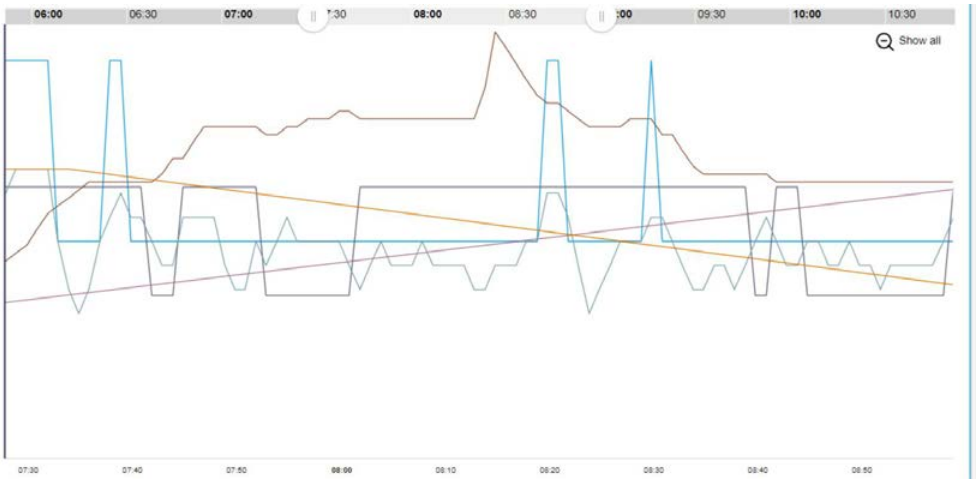
1. Move the mouse cursor over the chart
2. With the left mouse key pressed move the mouse over the time range within the chart to zoom
   ⓘ While zooming the zoom range is shown in light red.



Result

→ Based on the settings of the time filter the time range is narrowed further and is indicated in the chart.

→ The indicated time range is highlighted in the scroll bar above the chart.



Note: If you wish to reset the time range you need to reload the time filter in the function bar or click **Show all**.

Zoom with the Scrollbar

Procedure

1. Move the mouse cursor over the scrollbar

   → Sliders will appear on both ends of the scrollbar.

2. Move the mouse cursor over a slider

   → The mouse cursor changes to a double-headed arrow.

3. Move the slider with the left mouse key pressed

   → The time range is narrowed. The narrowed time range is represented in the chart. The scrollbar is indicated bright within the narrowed time range.

   → The zoomed range is shown on the timeline.

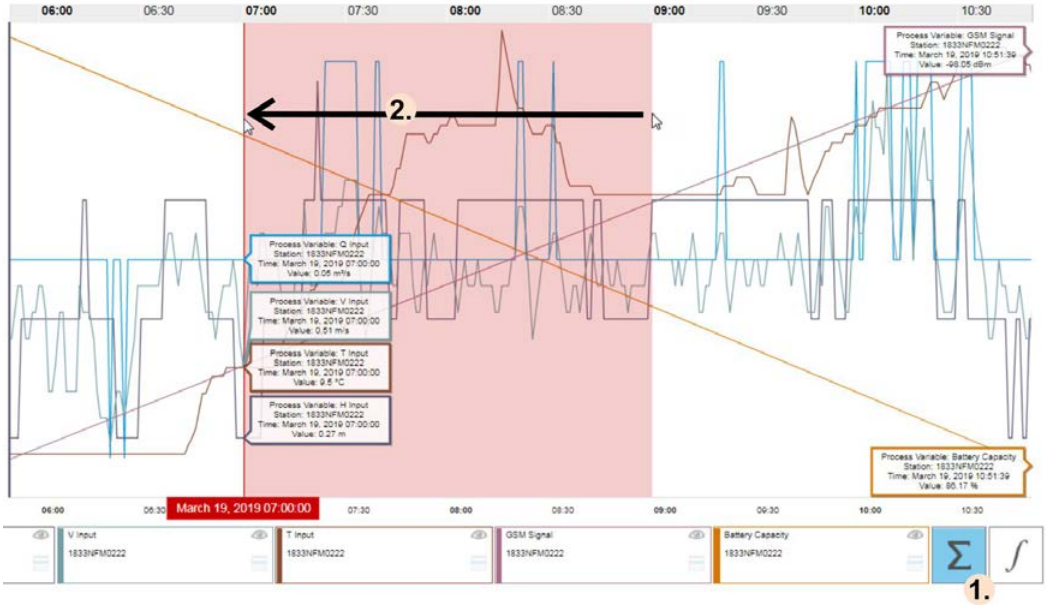
Note: If you wish to reset the time range click on **Show all**.

6.3.4.1.2 Performing Mathematical Operations

Calculating Totals

The totals function calculates the total per process value over a selected time range.

Abb. 6-25: Calculating Totals

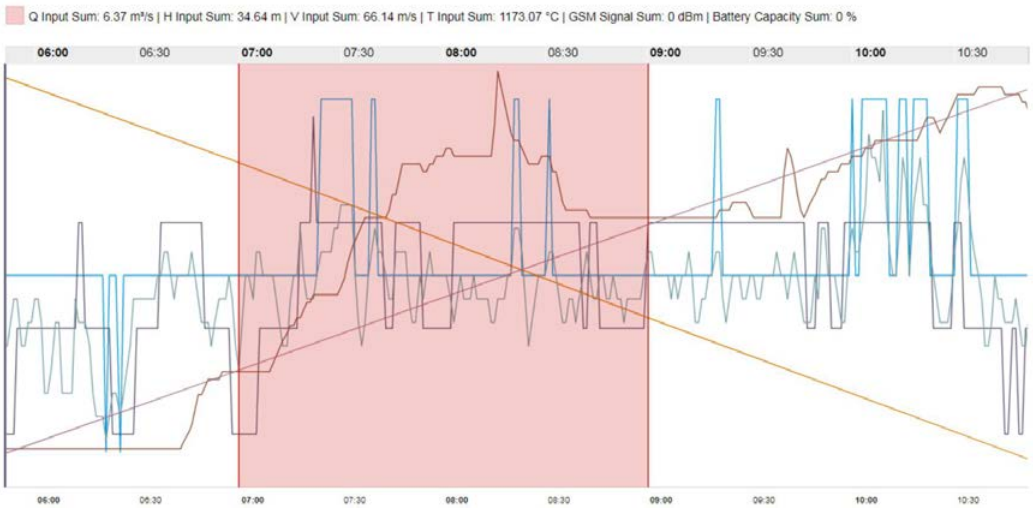


Procedure

1. Click the totals symbol
   → The function is activated and the totals symbol is highlighted blue.
2. With the left mouse key pressed mark the time range within the chart which is to be used for totalising
   → The time range will be highlighted red in the chart.

Result

→ The totals per process value are shown above the chart.



Calculate Integral

The integral function calculates the integral per graph over a selected time range.

Abb. 6-26: Calculate Integral

Procedure

1. Click the integral symbol

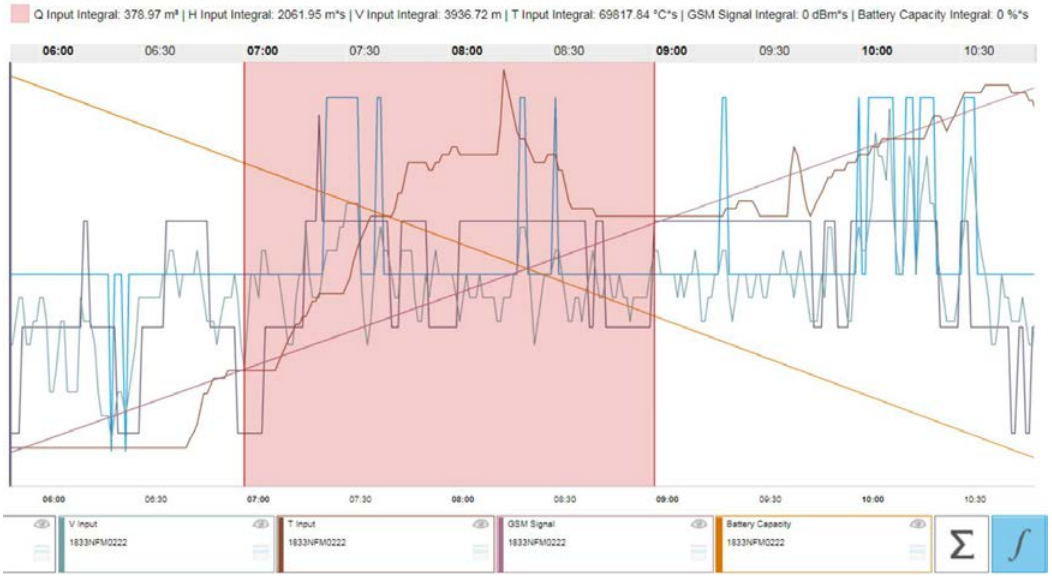
   → The function is activated and the integral symbol is highlighted blue.

2. With the left mouse key pressed mark the time range within the chart which is to be used to calculate the integral

   → The time range will be highlighted red in the chart.

Result

→ The integrals per graph are shown above the chart.



6.3.5 Log

In the view > **Log** you will find the log data of the device that is selected in the navigation area. Log data is created for NivuFlow Mobile and NivuFlow devices.

6.3.6 Measuring Point Configuration

The > **Measuring Point Configuration** view comprises the measuring point data, the configuration of hydrographs and reports configuration.

Contents and Functions of the Subsections:

- The **Measuring Point Data** comprise
  - the measuring point information (can be edited),
  - the geographic positon of the measuring point (can be edited),
  - the PV overview including the process variables created on the measuring point. Here you can select the process variables to edit their configuration and you can create calculation values for the measuring point.
- **Hydrographs**: here you can configure the chart that is to be shown in the > **Hydrographs** view.
- **Hydrographs Report**: Here you can configure a template for creating the diagram of the measuring point as a PDF file. Based on this template, the PDF files are automatically created cyclically and sent by e-mail to specific users.
- **Event Report**: Here you can configure a template for the automated creation of annual reports. This template applies to both event reports and DWA event reports. You can call up the reports created in the > **Files and Reports** view.
- **DWA Event Report**: Here you can activate the creation of DWA-compliant monthly reports. DWA event reports are based on the same configuration as the event reports. You can call up the reports created in the > **Files and Reports** view.

Authorisations

Tab. 6-14: Required authorisations for the subsections of the measuring point configuration

Subsection	Required Authorisation
Configuration of Hydroraphs	**Hydrographs**
Configuration of Hdrographs Reports	**Hydrographs** and **Files and Reports**
Configuration of Event Reports	**Files and Reports**
Configuration of DWA Event Reports	**Files and Reports**

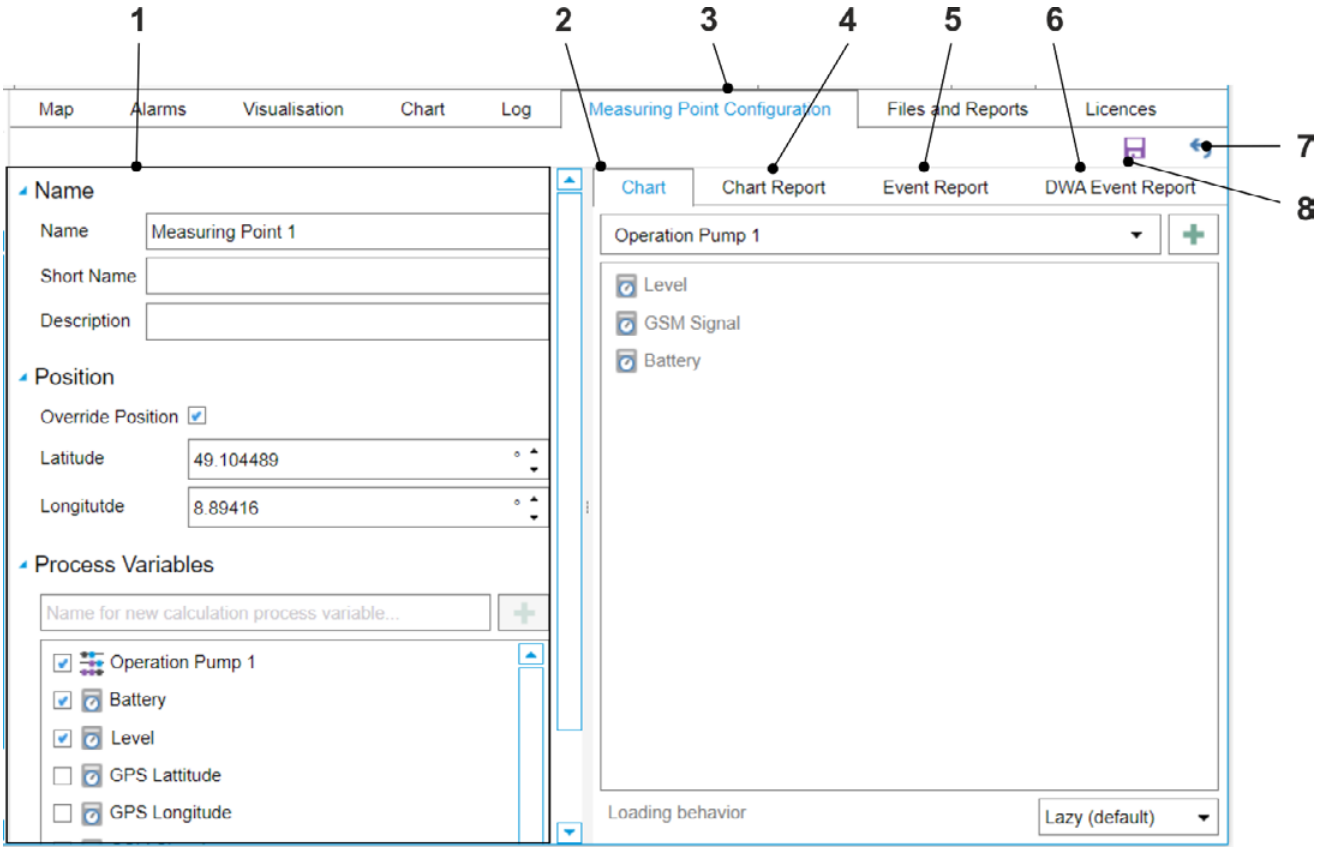
Related links
Edit User Configuration

6.3.6.1 Overview Measuring Point Configuration View

The > **Measuring Point Configuration** view refers to the measuring point selected in the navigation area.

The following Figure shows the subsections. You can find detailed information on the subsections in separate descriptions.

Abb. 6-27: Overview > **Measuring Point Configuration** View



1 Measuring point data
2 Opens the configuration of hydrographs
3 Opens the > **Measuring Point Configuration** view
4 Opens the configuration of templates for hydrograph reports
5 Opens the configuration of templates for event reports
6 Opens the configuration of templates for DWA event reports

Note: The creation of event reports and DWA event reports is based on the same template. If a template for event reports is configured, then this is displayed under **Event Report** and is also valid for the creation of DWA event reports. If only a template for DWA event reports is configured, then this is displayed under **DWA Event Report**.

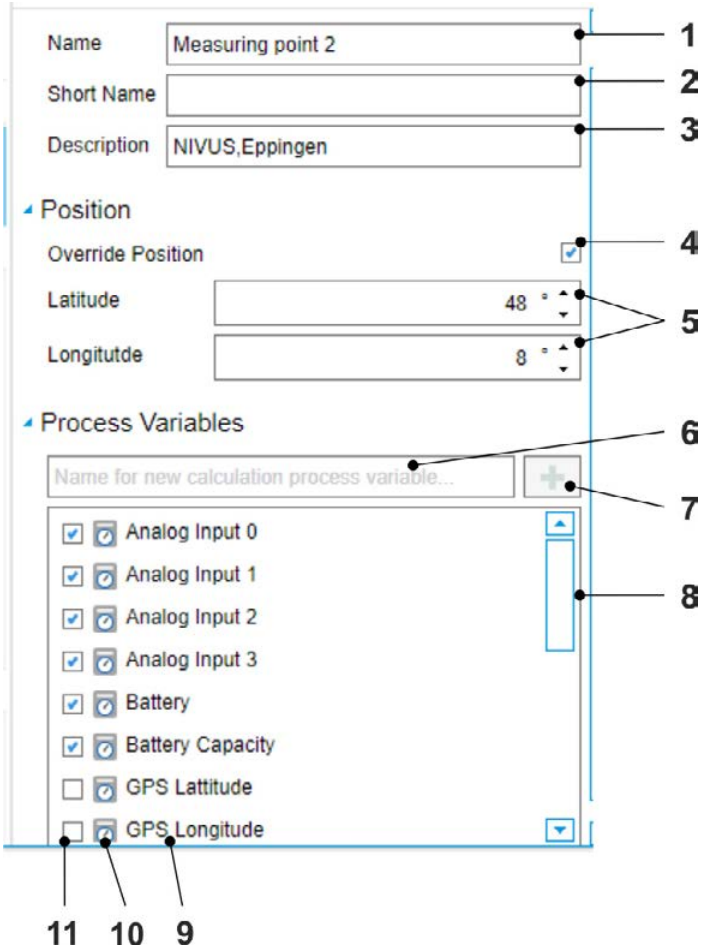
7 Will undo all unsaved changes in the measuring point data (incl. PV configuration), configuration of hydrographs and reports configuration
8 Saves all entries or changes in the measuring point data (incl. PV configuration), configuration of hydrographs and configuration of templates for reports

Related links
Measuring Point Data
Overview Configuration of Hydrographs
Configuration of Hdrographs Reports
Configuration of Event Reports and DWA Event Reports

6.3.6.2 Measuring Point Data

The measuring point data comprise the measuring point information, the geographic information and the process variables of the measuring point selected in the navigation area. You can edit the measuring point information as well as the geographic position. Moreover, you can create calculation values and select process variables to edit their configuration.

Abb. 6-28: Working Area: **> Measuring Point Configuration** View > Measuring Point Data



1 Name of measuring point

2 Short name of measuring point

3 Input field to describe e. g. location

4 Activates / deactivates the coordinates fields (**5**)
If GPS PVs are available at the measuring point the coordinates are transmitted from the device to the NIVUS WebPortal and then are displayed in the coordinates fields (**5**). In this case the function cannot be edited.
If GPS pvs are not available at the measuring point the coordinates can be detected in NIVUS WebPortal only manually. In such a case you need to activate the function and to specify the coordinates in the coordinates fields (**5**).
If the internal coordinates parameters set in the device vary from the real location, you can activate the function and correct the coordinates (**5**) here (correction is not transmitted to the device).

5 Input fields for the measuring point coordinates

6 Input field for a new calculation value

7 Creates the calculation value

8 Overview on process variables created for the measuring point.
When you select a process variable here the pv configuration opens and allows for editing.
You cannot add or delete process variables, however.

9 Name of the Process Variable

10 Symbol label of the PV type

11 Indicates the active-status of the process variable (here not editable)

☑: Active

☐: Deactivated

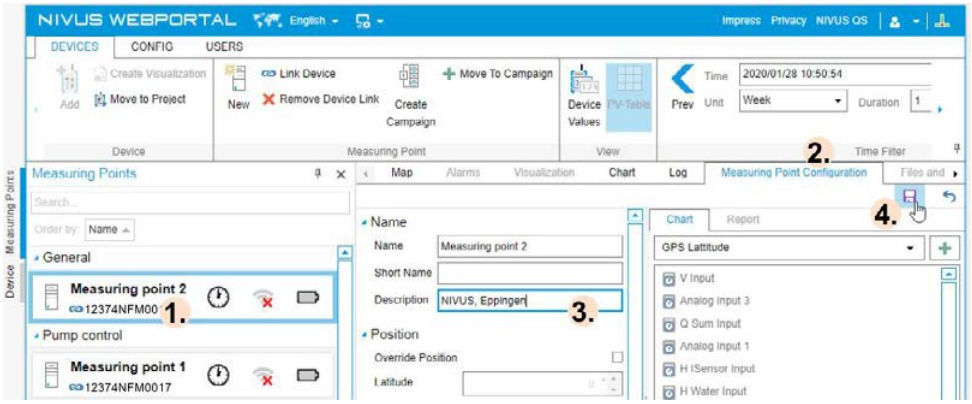
Related links

Types of PVs
Edit Process Variable
Configuration of Process Variables
Activate / Deactivate Process Variable

6.3.6.3 Edit Measuring Point Data

The following procedure describes how to edit name and position of a measuring point. You can find more on how to edit individual process variables of a measuring point or how to create a calculation value in separate descriptions.

Abb. 6-29: Edit Measuring Point Configuration



Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.

   → The measuring point is marked (blue frame)

   → The views in the working area show the data or information on the measuring point.

2. In the working area call up the **Measuring Point Configuration** view
3. Change the desired option
4. Click 💾

   → The changes will be saved.

Related links

Edit Process Variable
Configuration of Process Variables
Create and configure a Calculation Value

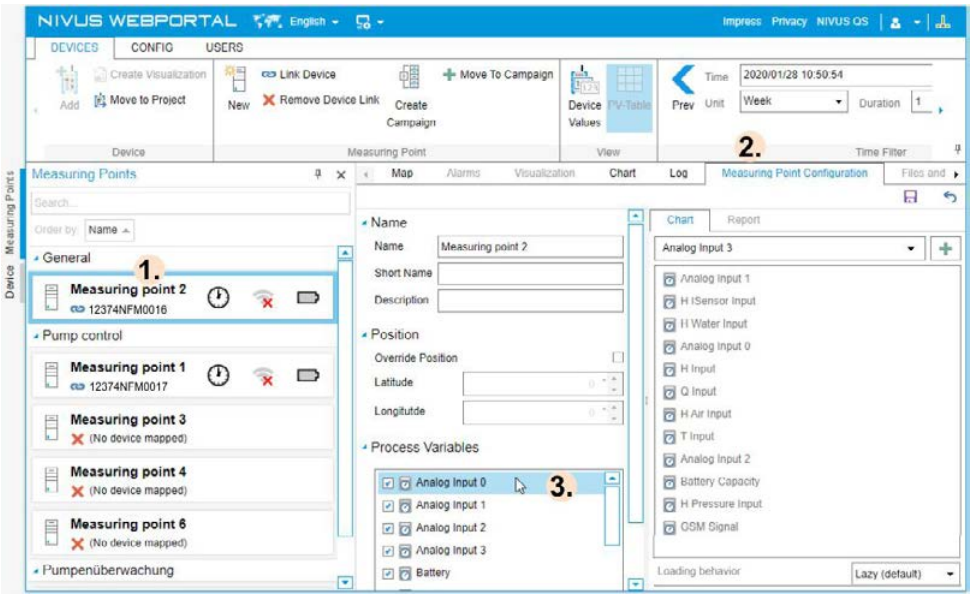
6.3.6.4 Edit Process Variable

You can edit the process variables which are created for a measuring point. The following sequence describes the basic procedure.

Note: A process variable is effective only as soon as it is activated. The active status of a process variable is shown in the pv overview. Open the pv configuration to edit the active status.

Procedure

1. In the measuring point overview select the measuring point
   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



   → The measuring point is marked (blue frame).
   → The views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** tab
   → The process variables of the measuring point are shown in the bottom area.
3. Select Process Variable
   → The **Edit Process Variable** window opens.
4. Change the desired options
   ⓘ The configuration options depend on the PV type. You can find detailed information on the configuration options of the various PV types in a separate chapter.
5. Click **Close**
   → The window is closing, **the changes (incl. message thresholds and reactions) are not yet saved**.
6. In the working area top left click the save symbol.

   → All changes will be saved.

Result

→ The configuration of process variables has been changed.

Related links
Configuration of Process Variables
Activate / Deactivate Process Variable

6.3.7 Configuration of Process Variables

You can edit the configurations of the PV types **Measured Value**, **Message** and **Counter**. Moreover, you can create **Calculation Values**. The PV configuration options depend on the PV type. The PV configuration also includes the message threshold configuration for analogue process variables.

Note: The process variables of the measuring point depend on the type of device that is to be used at the measuring point and are created during the measuring point configuration. The assignment of measuring point - process variables is final and cannot be changed later i. e. it is not possible to create other process variables than calculation values and process variables cannot be deleted.

The table below provides an overview on all subsections of the PV configuration.

Tab. 6-15: Subsections of PV Configuration

View / Window	Possible Functions / Options[1]	Open
PV Configuration / Window **Edit Process Variable**	Edit PV information, Activate / deactivate PV, Configure value range and unit, Only for calculation values: formula configuration, Overview on message thresholds, Open message threshold to edit, Create message threshold, Delete message threshold. Assign reaction to PV, Remove reaction from PV, Open reaction matrix,	In the navigation area select measuring point or device > in the working area open **Measuring Point Configuration** view > in the PV overview select PV
Message Threshold Configuration / Window **Edit Message Thresholds**	Configure message threshold, Activate / deactivate message threshold, Assign reaction to message threshold, Remove reaction from PV, Open reaction matrix.	Window **Edit Process Variable** > **Message Thresholds** > ✚ **or** Window **Edit Process Variable** > **Message Thresholds** > select message threshold
Reaction matrix (= overview on all reactions created in the project)	Assign Reaction to a Message Threshold or a PV.	Window **Edit Process Variable** or **Edit Message Threshold** > Reaction > ✚

1.Depending on type of PV

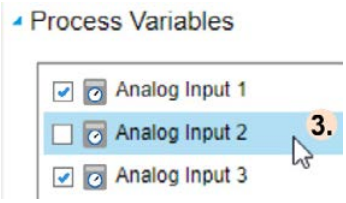
Related links
Calculation Values

6.3.7.1 Activate / Deactivate Process Variable

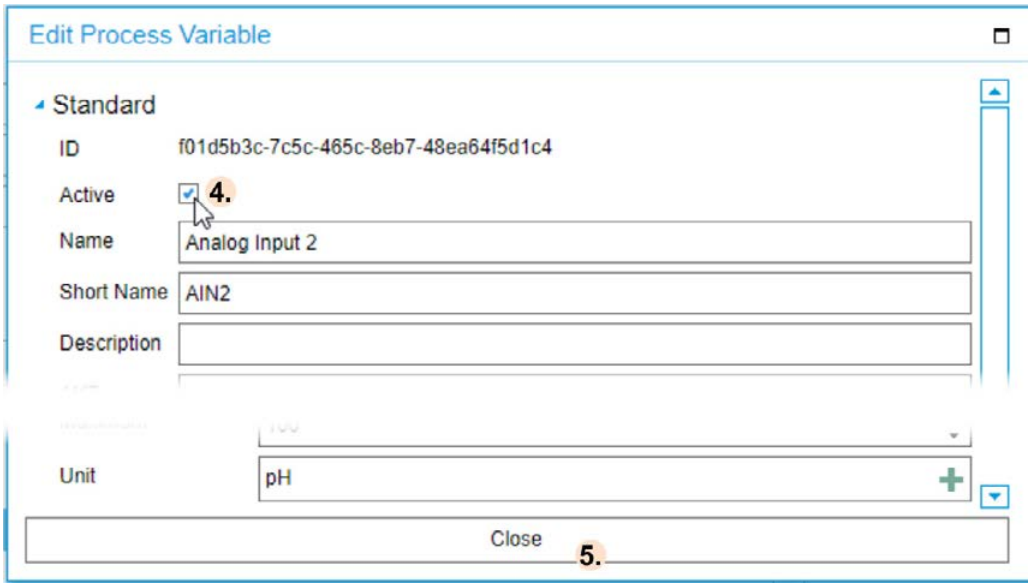
The following sequence describes how to activate a deactivated process variable. Follow the same procedure to deactivate an activated process variable.

Procedure

1. In the measuring point overview select the measuring point
   - ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   - → The measuring point is marked (blue frame).
   - → The views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** view
   - → The PV overview is shown in the bottom section of the working area.
3. Select PV



   - → The **Edit Process Variable** window opens.
4. Check the box under **Standard > Active**



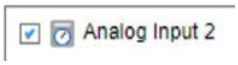
5. Click **Close**
   - → The **Edit Process Variable** window is closing and the active status is indicated by a grey check mark in the PV overview. The modification is not yet saved.
6. In the working area click the save symbol.

   - → The change is saved.

Result

→ The process variable is activated.

→ The active status is indicated in the PV overview by a blue check mark.



6.3.7.2 Process Variable: Configuration Options

The configuration options depend on the type of PV. Below you can find a list and a description of all options.

The configuration of PVs is divided into groups. In the following table you can find the assignment of PV types to the available configuration groups.

Tab. 6-16: Configuration Groups of PV Types

PV Type	Group Standard	Group Common	Group Functions
Measured Value	x	x	--
Message	x	--	Description see Functions of the PV Type Message
Counter	x	x	Description see Functions of the PV Type Counter
Calculation Value	x	x	Description see Functions of the PV Type Calculation Value
	Description for all types of PVs see Standard	Description for all types of PVs see Common	

Standard

Tab. 6-17: PV Configuration: Standard

Name	Description	Entry
Active	Active-status of PV	☑: Activated ☐: Deactivated
Name	Name of the process variable	Free text
Short Name	Short name of the process variable	Free text
Description	Input field for additional information	Free text
AKZ	Input field for AKZ label	Free text

Common

Tab. 6-18: PV Configuration: Common

Name	Description	Entry
Decimal Places	Decimal places of the process value	Numerical value
Minimum	Lower limit of the value range (= lower limit of process value)	Numerical value
Maximum	Upper limit of the value range (= upper limit of process value)	Numerical value
Unit	Unit of the process value	Click ➕ to open the units selection and double-click to select.
Message Thresholds	Input field for a new message threshold and overview on message thresholds	Click ➕ to create a new message threshold **or** select a message threshold from the message threshold overview to edit this threshold
Mode (available only for NLG and NLC devices with available process coupling)	Signal of the connected sensor	**Options:** **0 -20 mA** **4 -20 mA**

Functions of the PV Type Message

Tab. 6-19: PV Configuration: Functions of the PV Type Message

Name	Description	Entry
Change PV Status	PV status change of all PVs of the same station when a limit value is violated	**Options:** **None**: no PV status change **Maintenance**: PVs are set to PV status Maintenance
Logic	Reporting logic between device input (On / Off) and PV (True / False)	☑: On (1) = True (1) Off (0) = False (0) ☐: On (1) = False (0) Off (0) = True (1)
Reaction for Enter	Reaction in case of reaching the upper message threshold	Click ➕ to open the reaction matrix and select the reaction with double click.
Text for Enter	Text that is written into the message book or transmitted with remote alarming as soon as the upper message threshold is reached.	Free text
Reaction for Leave	Reaction in case of reaching the lower message threshold	Click ➕ to open the reaction matrix and select the reaction with double click.
Text for Leave	Text that is written into the message book or transmitted with remote alarming as soon as the lower message threshold is reached.	Free text

Functions of the PV Type Counter

Tab. 6-20: PV Configuration: Functions of the PV Type Counter

Name	Description	Entry
Counter Type		**Options:** **Continuous**: counter counts continuously **Daily Reset**: counter will be reset on daily change
Daily Change	Relevant only if **Counter Type** = **Daily Reset**: point in time when the counter will be reset	Click  to open the calendar and to configure a point in time **or** to overwrite a point in time in the input field.
Step Value	Value corresponding to a pulse at the counter. Example: one impulse of a rain gauge corresponds to 0.1 mm --> Step Value = 0.1; counter unit = mm	Numerical value
Step Value Unit	Required specification if the PV unit and the unit of the counter are different.	Click  to open the units selection and double-click to select.
Calculation Type	Calculation of the process value	**Options:** **Differential** **Integral**

Functions of the PV Type Calculation Value

Tab. 6-21: PV Configuration: Functions of the PV Type Calculation Value

Name	Description	Entry
Process Variable	Process variable which is to be included into the calculation.	Click on  to open the PV overview and select PV with a double click.
Aggregate Function		Select from list
Calculation Interval	Basis for calculation time and calculation period	Select from list
Formula	Automatically configured calculation formula	-
Time Zone	Time zone in which the calculation is executed.	Select from list
Archiving	Storage method of the calculation value in the database	**Options:** **None**: the calculation value is not saved. **Change**: the calculation value is saved as soon as it changes. **Device Cycle**: data is saved depending on the transmission cycle of the unit. This means that the process value is saved in the database with a time stamp according to the interval parameterised on the unit.

Related links
Calculation Values
Message Thresholds
Reactions

6.3.7.3 Calculation Values

With the help of calculated values, you can use the process values of a process variable for certain statistical evaluations.

6.3.7.3.1 Basics on Calculation Values

For a calculation value, a calculation formula is applied to the process values of a process variable over a defined period of time at a specific point in time.

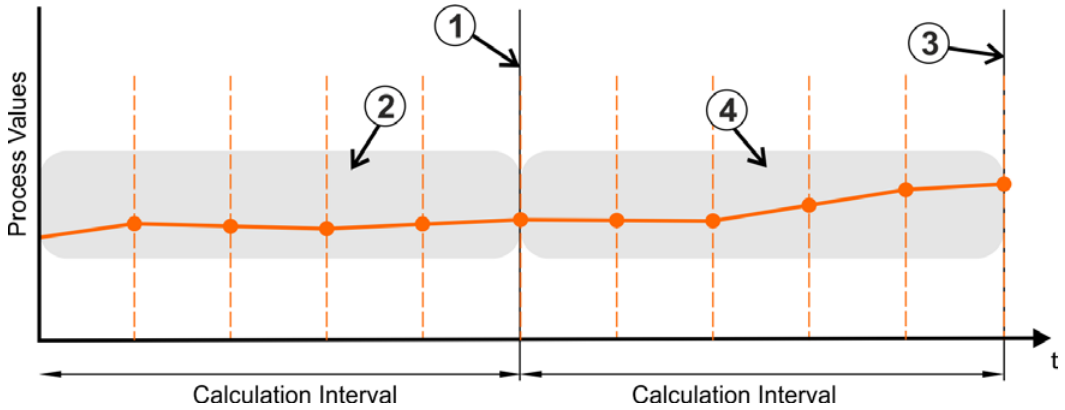
The calculation formula is automatically created from the following freely selectable parameters:

- Process Variable
- Aggregate Function
- Calculation Interval
  The calculation time and calculation period in the set time zone result from the calculation interval (see the following table and figure).
- Time Zone

Tab. 6-22: Calculation Intervals of Calculation Values

Calculation Interval	Calculation Time	Calculation Period
1 Hour	Each full hour	One hour before the calculation time
2 Hours	Each full even hour	2 hours before the calculation time
4 Hours	Every 4 hours starting from 00:00 hrs	4 hours before the calculation time
8 Hours	Every 8 hours starting from 00:00 hrs	8 hours before the calculation time
12 Hours	Every day at 00:00 and 12:00 o'clock	12 hours before the calculation time
1 Day	Every day at 00:00 o'clock	24 hours before the calculation time
1 Week	Every Monday at 00:00 o'clock	One week before the calculation time
1 Month	On the 1st of each month at 00:00 o'clock	One month before the calculation time
1 Year	On the 1st of January of each year at 00:00 o'clock	One year before the calculation time

Abb. 6-30: Calculation Period



1 1. Calculation Time
2 Period over which the calculation value is calculated at the first calculation time.
3 2. Calculation Time
4 Period over which the calculation value is calculated at the second calculation time.

●: Process values saved in NIVUS WebPortal

Note: If no process values are available for the calculation period at the calculation time, then the calculation is repeated in shorter intervals until process values are available.

Return of calculation values:

- Always as floating-point number
- Always in the basic unit of the process variable

Use of Calculation Values:

- Use in Charts (> **Hydrographs**)
- More possible uses can be implemented as additional service at extra costs. If you should require corresponding services please contact NIVUS.

Related links

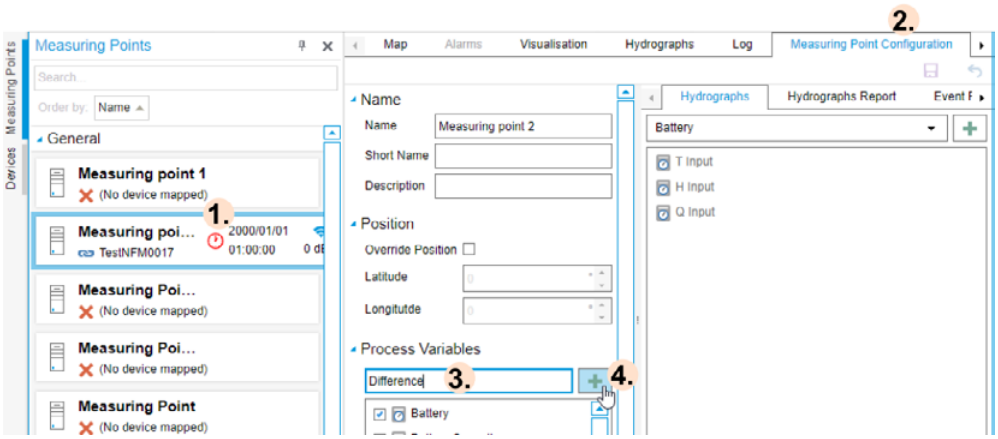
Process Variable: Configuration Options

6.3.7.3.2 Create and configure a Calculation Value

Procedure

1. In the measuring points overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



   → Measuring point is highlighted (blue frame).

   → All views in the working area show the data or information on the measuring point.

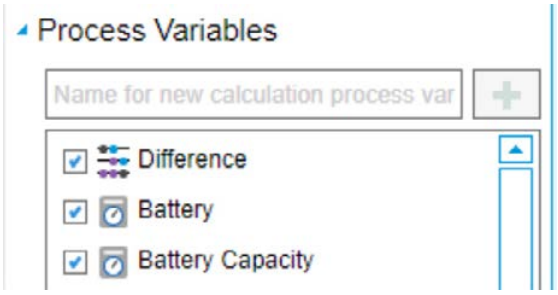
2. In the working area open the **Measuring Point Configuration** tab

   → The overview on the measuring point PVs is shown in the bottom area.

3. Specify a name for the calculation value

4. Click ➕

   → The calculation value is saved and is shown in the PV overview.



5. Select the calculation value in the PV overview

   → The **Edit Process Variable** window opens.

6. Click **Process Variable** > ➕ and select PV with double click

   → The process variable will be saved as variable for calculation.

7. Select **Aggregate Function**

   → The calculation formula is automatically configured and displayed under **Formula**.

8. Select **Calculation Interval**

   ⓘ The calculation time and calculation period result from the calculation interval.

   → The calculation interval is taken over into the calculation formula.

9. Select the **Time Zone** in which the calculation is to be executed

10. Select **Archiving**

11. Edit other options if required

12. Click **Close**

    → The window will close. The PV configuration is not yet saved.

13. In the working area click the save symbol 💾

Result

→ The calculation value is saved and configured.

Related links

Basics on Calculation Values

6.3.7.3.3 Example Calculation Values

Daily value of a flow

Target of the calculation: The flow rate (m^3) of the last day in the time zone CET (Central European Time).

This results in the following configuration:

Tab. 6-23: Example configuration of a calculation value: Daily value of a flow

Option	Configuration	Explanation
Process Variable	PV Measured Value Q Input/Flow Rate (l/s)	
Aggregate Function	Integral	The integral of a flow rate (l/s) returns the flow rate in the basic unit m^3.
Calculation Interval	1 Day	The calculated value is calculated daily at 00:00 o'clock over the last 24 hours.
Formula	Configured by the system	
Time Zone	UTC+1	

Maximum level within one week

Target of the calculation: The maximum level (m) within the last week in the time zone CEST (Central European Summer Time).

This results in the following configuration:

Tab. 6-24: Example configuration of a calculation value: Maximum level in one week

Option	Configuration	Explanation
Process Variable	PV Measured Value Level (m)	
Aggregate Function	Max	
Calculation Interval	1 Week	The calculated value is calculated every Monday at 00:00 o'clock over the last 7 days.
Formula	Configured by the system	
Time Zone	UTC+2	

6.3.7.4 Message Thresholds

6.3.7.4.1 Basics on Message Thresholds

Message thresholds mark the transition from normal status to disturbance and possibly trigger a reaction.

The message threshold is defined as follows:

- Current Measurement Value - Comparative Operator - Limit Value

As soon as an message threshold is reached, exceeded or deceeded this is considered as limit value violation.

Example:

- **Current measured value:** PV Level = 10 m
  Comparative operator: >
  Limit value: 9 m
  10 m > 9 m = true, Process Condition = Disturbance
- **Current measured value:** PV Level = 8 m
  Comparative operator: >
  Limit value: 9 m
  8 m > 9 m = false, Process Condition = Normal

When you create or edit a message threshold observe the following notes:

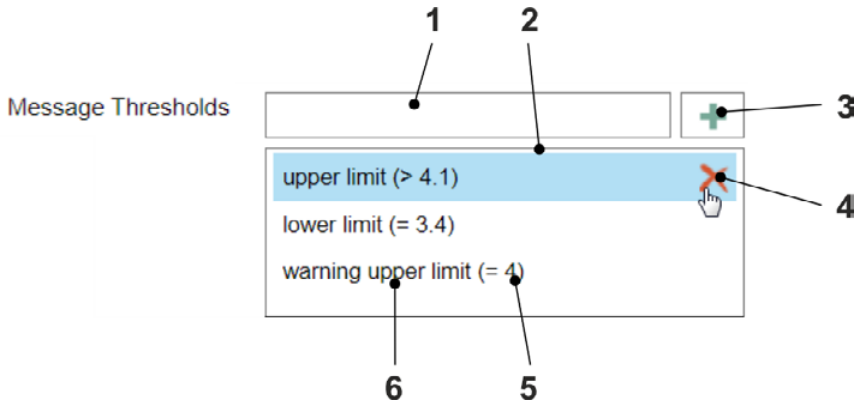
- **Assignment PV : Message Threshold = 1 : n**: you can create multiple message thresholds for one process variable. One message threshold is valid always for one process variable only.
- **Active Status**: you can activate or deactivate each message threshold. A limit value violation can trigger a reaction only if the message threshold is activated.

6.3.7.4.2 Overview on Message Thresholds

The overview on the message thresholds can be found in the PV configuration (**Edit Process Variable** window). The overview on message thresholds shows the message thresholds available for a process variable. Here you can add more message thresholds and you can call up existing message thresholds for editing.

Note: A message threshold is effective only as soon as it is activated. To view or to edit the active status of a message thresholds open the configuration of message thresholds.

Abb. 6-31: Overview on Message Thresholds



1 Input field to specify a name for a new message threshold

2 Overview on message thresholds including all message thresholds available for the selected process variable. Call up message threshold for editing: select message threshold with left mouse key.

3 Opens the message threshold configuration (**Edit Message Threshold** window) to create a new message threshold.

4 Shown only on mouseover: deletes the selected message threshold

5 Comparative operator and defined limit value

6 Name of message threshold

6.3.7.4.3 Message Threshold: Configuration Options

In the message threshold configuration each configure an message threshold and the reaction that is to occur in case of a limit value violation.

Standard

Tab. 6-25: Message Threshold Configuration: Standard

Name	Description	Entry
Name	Name of message threshold	Free text
Short Name	Short name of message threshold	Free text
Description	Input field for additional information	Free text

Message Threshold

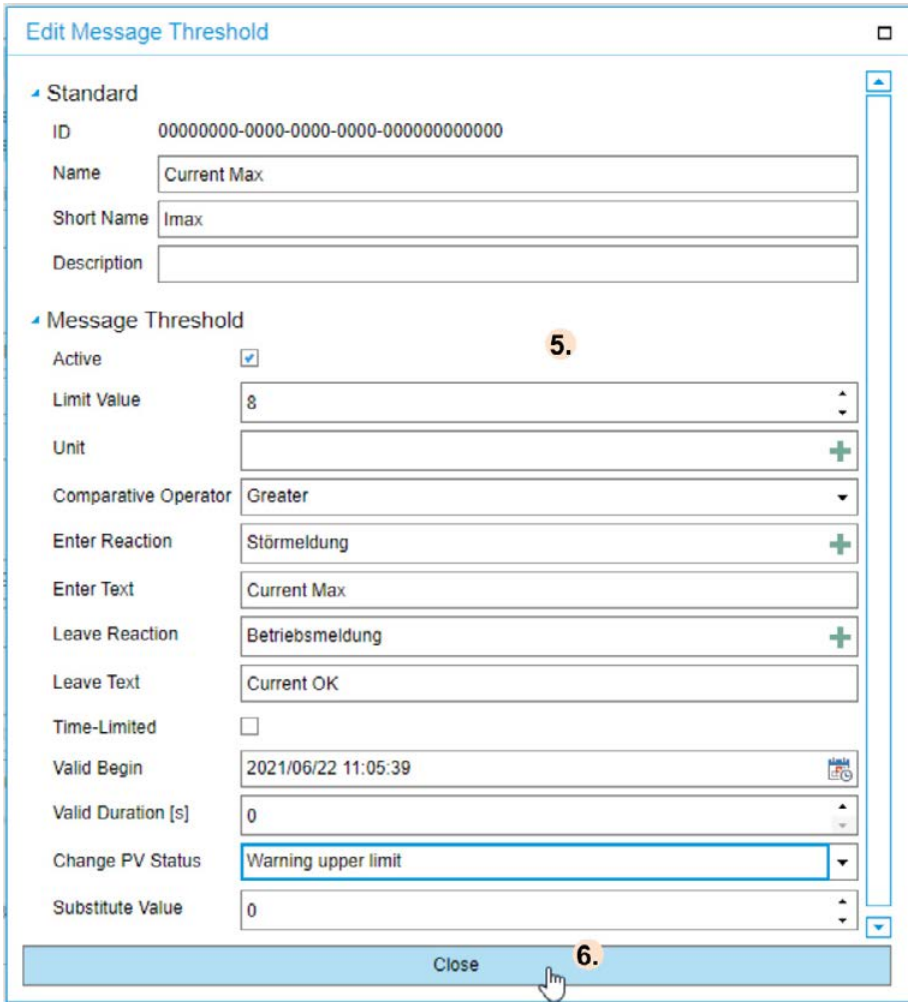
Tab. 6-26: Message Threshold Configuration: Message Threshold

Name	Description	Entry
Active	Active-status of message threshold	Activate / deactivate
Limit Value	Limit value of message threshold	Numerical value
Unit	Unit of limit value	Click ➕ to open the units selection and double-click to select.
Comparative Operator	Comparative operator of message threshold between current measurement value - limit value	Select from list
Reaction for Enter	Links the message threshold to the reaction that is triggered as soon as a limit value violation occurs.	Click ➕ to open the reaction matrix and select the reaction with double click or create new reaction.
Text for Enter	Text that is written into the message book if required and / or transmitted with remote alarming as soon as a limit value violation occurs.	Free text
Reaction for Leave	Links the message threshold to the reaction that is triggered as soon as the limit value violation is over.	Click ➕ to open the reaction matrix and select the reaction with double click or create new reaction.
Text for Leave	Text that is written into the message book if required and / or transmitted with remote alarming as soon as the limit value violation is over.	Free text
Time-Limited	Activates / deactivates the message thresholds only for a limited time slot.	Activate / deactivate
Validity Start	Relevant only if **Time-Limited** ☑: start of time slot	Time
Validity [s]	Relevant only if **Time-Limited** ☑: duration of time slot	Time span in seconds
Change PV Status	Causes a PV status change in the event of a limit value violation.	Select from list
Routing	Links the message threshold to a PV for routing. **Routing**: As soon as a limit value violation occurs, the system switches to the routing PV.	Click on ➕ to open the PV overview and select PV with a double click.
Routing Value	Value that is written to the routing PV in the event of a limit value violation.	Numerical value
Substitute Value	Value that is written to the PV in the event of a limit value violation.	Numerical value

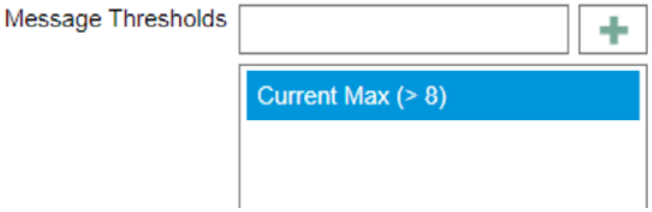
6.3.7.4.4 Create Message Threshold

Procedure

1. In the measuring point overview select the measuring point
   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   → The measuring point is marked (blue frame).
   → The views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** view
   → The PV overview is shown in the bottom section of the working area.
3. Select PV
   → The **Edit Process Variable** window opens.
4. Click **Common > Message Threholds** > ✚
   → The **Edit Message Threshold** window opens.
5. Edit the message threshold configuration, for configuration example see the following figure



6. Click **Close**
   → The **Edit Message Threshold** window is closing and the message threshold is shown in the overview on message thresholds. The message threshold is not yet saved.



7. In the working area click the save symbol .
   → The specifications will be saved.

Result

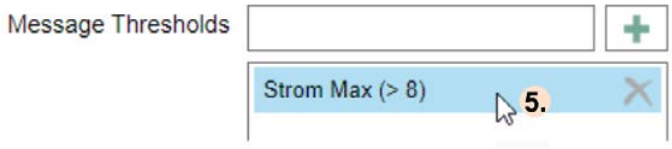
→ The message threshold is created for the PV.

6.3.7.4.5 Change Message Threshold

You can change the configuration of a message threshold. The following sequence describes the basic procedure.

Procedure

1. In the measuring point overview select the measuring point
   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   → The measuring point is marked (blue frame).
   → The views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** view
   → The PV overview is shown in the bottom section of the working area.
3. Select PV
   → The **Edit Process Variable** window opens.
4. Click **Common > Message Thresholds** >
   → The **Edit Message Threshold** window opens.
5. Select a message threshold from the overview on message thresholds



   → The **Edit Message Threshold** window opens.
6. Change the desired options
7. Click **Close**
   → The **Edit Message Threshold** window is closing and the message threshold is shown in the overview on message thresholds. The changes are not yet saved.

8. In the working area click the save symbol.

→ The changes will be saved.

Result

→ The message threshold is now changed.

6.3.7.4.6 Delete Message Threshold

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.

   → The measuring point is marked (blue frame).

   → The views in the working area show the data or information on the measuring point.

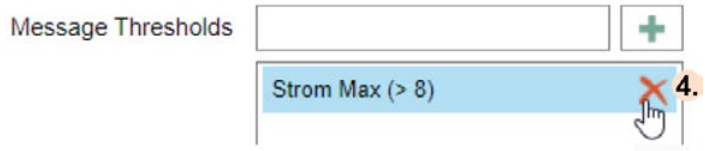
2. In the working area open the **Measuring Point Configuration** view

   → The PV overview is shown in the bottom section of the working area.

3. Select PV

   → The **Edit Process Variable** window opens.

4. In the overview on message thresholds use the mouse cursor to click the delete icon of the desired message threshold and delete by clicking left



   → The message threshold is removed from the overview on message thresholds. The modification is not yet saved.

5. Click **Close**

   → The **Edit Process Variable** window is closing. The message threshold is not yet deleted.

6. In the working area click the save symbol.

Result

→ The message threshold is deleted.

6.3.7.5 Reactions

6.3.7.5.1 Basics on Reactions

Reactions influence and control the processing of messages and remote alarming by triggering other events (e.g. creating a message book entry) under certain conditions (such as limit value violations). Moreover, reactions may influence a PV status.

Pre-configured reactions are provided by the system (reaction matrix).

If you assign a reaction to a process variable or a message threshold, then observe the following notes:

- **Analog PVs: Assignment Message Threshold : Reaction = n : 1:** Only one reaction can be assigned to a certain message threshold, but you can assign one reaction to any number of message thresholds.
- **Digital PVs: Assignment PV : Reaction = n : 2:** You can assign a maximum of 2 reactions to a digital PV(upper - and / or lower message threshold), but you can assign one reaction to any number of PVs (only possible in NICOS Studio).
- **Message Book Entry subject to Acknowledgement**: Reactions can create message book entries that are either subject to acknowledgement or not. If the reaction is to create a message book entry subject to acknowledgement you must use a reaction with acknowledgement requirement activated.
- **Remote Alarming**: Reactions can trigger remote alarming. If the reaction is to trigger remote alarming, then you must use a reaction with remote alarming activated.

Related links
Path to the Message Book Entry
Path to Remote Alarming

6.3.7.5.2 Reaction Matrix

In the reaction matrix you can find the pre-configured reactions provided by the system.

The reactions differ by the events that trigger them and are not editable. In the reaction matrix you can select a reaction with a double click in order to assign it to a process variable or to a message threshold.

The reaction matrix comprises the following columns:

Tab. 6-27: Reaction Matrix

Column	Description
Name	Describes the intended use of the reaction
Message Type	Is shown in the message book (symbol label in the message book) and has possibly influence on the PV status symbol label
Delay [s]	Delays the activation of the reaction after reaching, exceeding or falling below the message threshold (= time in seconds)
Remote Alarming	☑: The reaction triggers remote alarming. ☐: The reaction does not trigger remote alarming.
Acknowlegement Requirement	☑: The reaction generates an entry in the message book that must be acknowledged. ☐: The reaction generates an entry in the message book that must not be acknowledged.

6.3.7.5.3 Assign Reaction to PV / Message Threshold

You can assign a reaction to a message threshold / a PV. The following sequence describes the procedure.

Procedure

1. In the measuring point overview select the measuring point
   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   → Measuring point is highlighted (blue frame).
   → All views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** view
   → The PV overview is shown in the bottom section of the working area.
3. Select PV
   → The **Edit Process Variable** window opens.
4. Only for analog process variables: Click **Common > Message Thresholds** > ✚
   → The **Edit Message Threshold** window opens.
5. Assign **Reaction for Enter** and **Reaction for Leave**:
   - Click **Reaction for Enter** > ✚
     → The reaction matrix opens.
   - Double-click in the reaction matrix to select the reaction
     → The reaction matrix is closing.
     → The reaction is assigned to the process variable / the message threshold and is shown in the **Reaction for Enter** field. The modification is not yet saved in the database.

   - Proceed likewise to assign a **Reaction for Leave**
6. Only for analog process variables: Click **Close**
   → The **Edit Message Threshold** window is closing.
7. Click **Close**
   → The **Edit Process Variable** window is closing.
8. In the working area click the save symbol

Result

→ The reaction is assigned to the selected process variable.

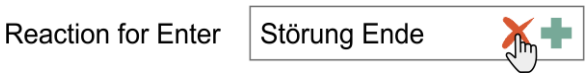
6.3.7.5.4 Separate Reaction from PV / a Message Threshold

You can remove reactions assigned to a message threshold / a PV without deleting the reactions from the database. The following sequence describes the procedure.

The following sequence gives an example on how to remove the reaction from an analog PV. Steps 4 an 6 are nor required for digital PVs.

Procedure

1. In the measuring point overview select the measuring point
   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.
   → Measuring point is highlighted (blue frame).
   → All views in the working area show the data or information on the measuring point.
2. In the working area open the **Measuring Point Configuration** view
   → The PV overview is shown in the bottom section of the working area.
3. Select PV
   → The **Edit Process Variable** window opens.
4. Only for analog process variables: Click **Common > Message Thresholds** > ✚
   → The **Edit Message Threshold** window opens.
5. In the **Reaction for Enter** field or **Reaction for Leave** field move the mouse cursor to the delete icon and delete by clicking left

   → The reaction is removed from the field. The modification is not yet saved.

6. Only for analog process variables: Click **Close**
   → The **Edit Message Threshold** window is closing.
7. Click **Close**
   → The **Edit Process Variable** window is closing.
8. In the working area click the save symbol

Result

→ The reaction is removed from the selected PV / the selected message threshold, but it is not deleted from the database.

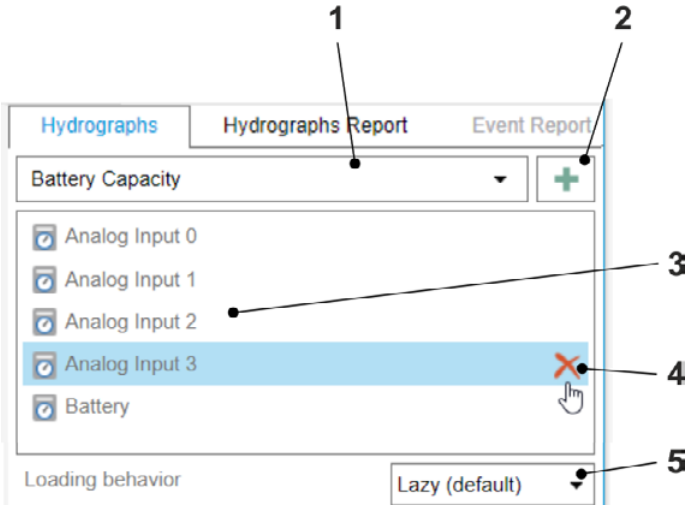
6.3.8 Configuration of Hydrographs

The Configuration of Hydrographs comprises

- the selection of process variables, the values of which are to be represented in a chart (default = line chart) as graphs (View > **Hydrographs**)
- the representation of the individual hydrographs,
- the configuration of help lines and value axes,
- the loading behaviour of the chart.

6.3.8.1 Overview Configuration of Hydrographs

Abb. 6-32: Configuration of Hydroraphs



1 Drop-Down Menu containing all PVs available on the measuring point. Here you can select the process variables which are to be shown as hydrograph in the chart.

2 Adds the selected process variable (**1**) to the chart.

3 Overview on the process variables shown in the chart as hydrograph.
Here you can select a process variable to edit the accompanying representation parameters in the chart (series, guides and value axis).

4 Only visible with mouseover: removes the selected process variable from the chart.

5 Drop-Down menu to determine the loading behaviour of the chart:
Lazy on Zoom/Pan: Data is reloaded if required.
Recommended for charts covering long periods.
Representation of hydrographs: approximation providing more details with higher zoom levels.
All Values up Front: all data is loaded instantly, expect longer loading times for larger amounts of data.
Recommended for charts covering short periods.
Representation of graphs: accurate at any time.

Tip: The order of the process variables in the PV overview (**3**) is equal to the order of the PV legends and value axes in the chart. You can change the order by moving the process variables in the PV overview (**3**) with the left mouse key pressed.

6.3.8.2 Hydrograph: Configuration Options

Below you can find a list of all available options for the configuration of hydrographs.

The options each refer to the selected process variable and hence to their representation within the chart and are subdivided into 3 groups.

Tab. 6-28: Configuration of Hydrographs: Series

Name	Description	Input
Colour	Colour of all representation parameters of the process variable in the chart (hydrograph, PV legend, marker, guides and value axis)	Click the colour field to open the colour palette, then select the colour.
Series Type	Representation of the series	Select from list (**Default** = Line)
Line Thickness	Line thickness of hydrograph in pixel	Numerical value
Show Bullets	Activates / deactivates the indication of bullets on the hydrograph	☑: Bullets are shown on the hydrograph ☐ Hydrograph is shown without bullets
Bullet Size (only visible with activated bullets)	Bullet size in pixel	Numerical value

Tab. 6-29: Configuration of Hydrographs: Guides

Name	Description	Input
Show Guides	Activates / deactivates the guides and shows / hides the guides selection	☑: Guides are activated and available ☐: Guides are not available
Guides (only visible with activated guides)	Guides selection to indicate certain values in the chart as guides	☑: Guide is shown in the chart ☐: Guide is not shown in the chart
Limit Values (only visible with activated guides)	Should message thresholds be defined for the process variable their limit values are shown here. You can activate the limit values to show them as guides within the chart.	☑: Limit value is shown in the chart as guide ☐: Limit value is not shown in the chart

Tab. 6-30: Configuration of Hydrographs: Value Axis

Name	Description	Input
Show Graph Value Axis	Shows / hides a separate value axis for the hydrograph in the chart and shows / hides the following options for the configuration of value axes	☑: Hydrograph value axis is shown ☐: Hydrograph value axis is not shown
Name (only visible with the activated value axis)	Input field for the axis label within the chart	Free text
Margin (only visible with the activated value axis)	Distance between value axis and Y-axis of the chart in pixel	Numerical value
Position (only visible with the activated value axis)	Axis position	Select from list
Invert (only visible with the activated value axis)	Activates / deactivates reversed scaling	☑: Scaling is reversed
Scaling (only visible with the activated value axis)	Value range of value axis	Select from list with the options: **Automatic**: minimum to maximum measurement value **Measurement Range**: entire measurement range **Manual**: free definable value range
Minimum (shown only if Scaling = Manual)	Lower limit of value range	Numerical value
Maximum (shown only if Scaling = Manual)	Upper limit of value range	Numerical value
Unit	Scaling unit	Select from list
Draw to End (Only for digital process variables)	Draws the hydrograph from the last stored process value to the end of the displayed time range	Activate / deactivate

Related links

Overview Hydrographs View

6.3.8.3 Configure Hydrographs

The following sequence provides examples on how to create process variables as hydrographs in a chart and how to edit the representation parameters.

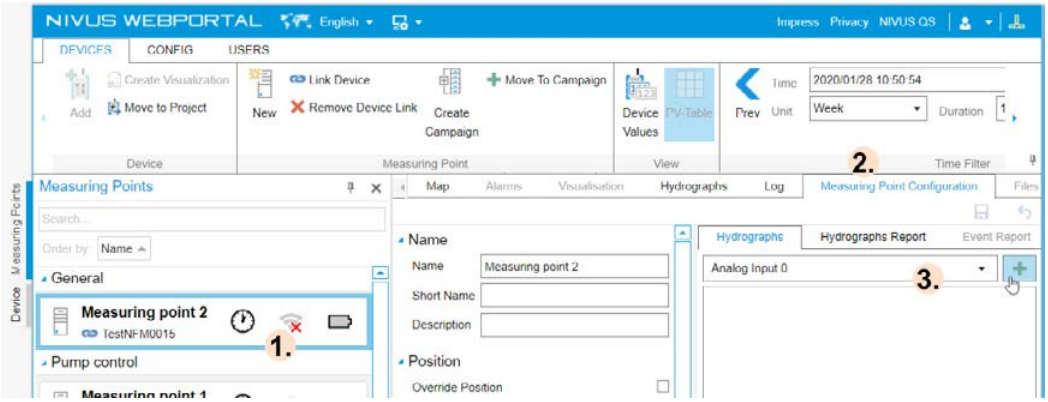
Prerequisite(s)

✓ You have access rights for the **Hydroraphs** sub-section.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



   → The measuring point is marked (blue frame).

   → The views in the working area show the data or information on the measuring point.

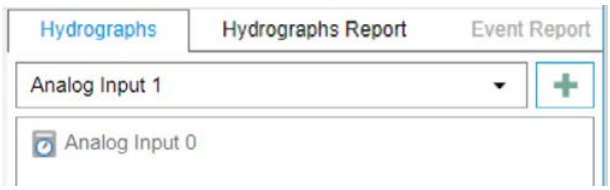
2. In the working area open the **Measuring Point Configuration** view

3. Create PV as hydrograph in the chart:

   - In the **Hydrographs** subsection open the drop-down menu and select the process variable that is to be shown in the chart as hydrograph

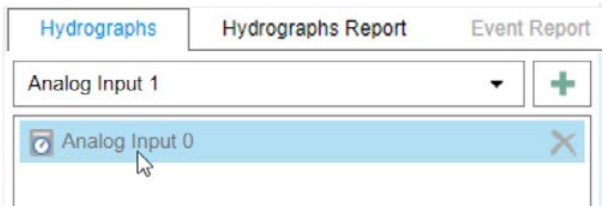
   - Click ➕

     → The process variable is moved to the PV overview of the chart and hence is created in the chart as hydrograph. The changes are not yet saved.

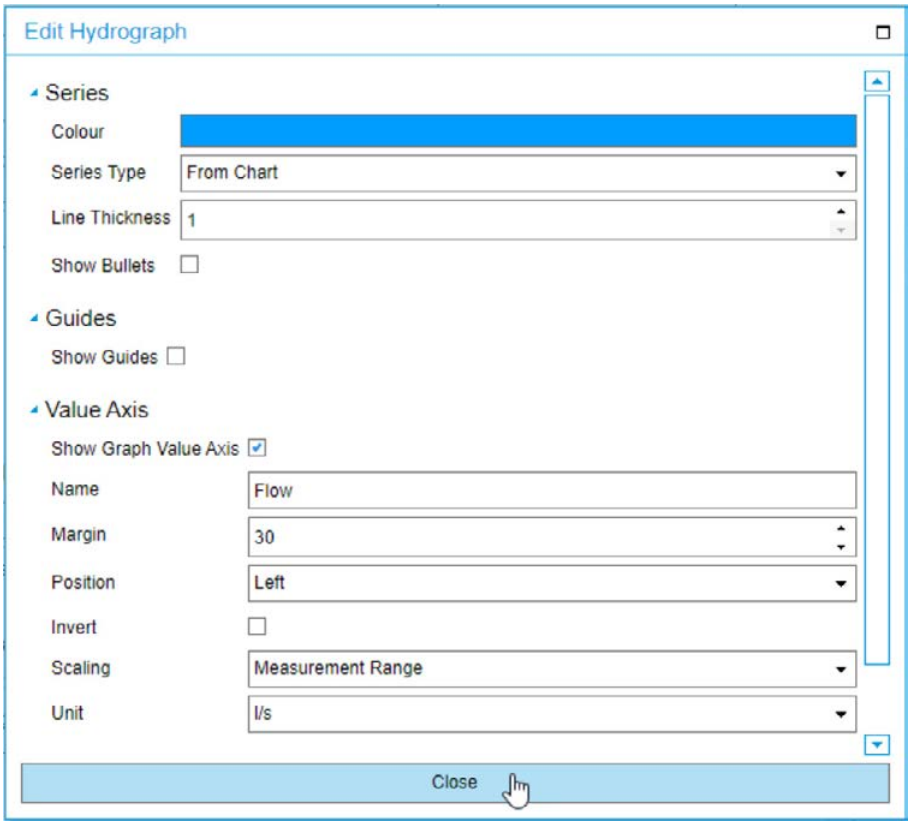


   - For all further PVs repeat step **3**

4. Edit the representation parameters of the hydrograph:
   - Select process variable in the PV overview of the chart



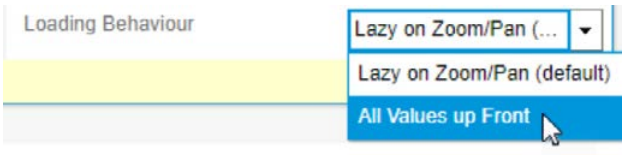
   → The **Edit Hydrograph** window opens.
   - Optional: edit series



   - Optional: activate and select help lines
   - Optional: activate and select value axis
   - Click **Close**

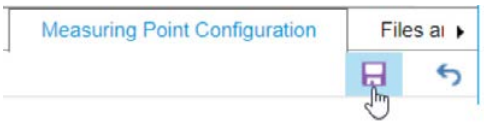
     → The **Edit Hydrograph** window is closing. The changes are not yet saved.
   - For all further hydrographs repeat step **4**

5. Optional: change loading behaviour (standard setting **Lazy on Zoom/Pan**)



   ⓘ Changing to **All Values up Front** provides exact representation of the hydrograph but may require longer loading times. Recommended: change only for short periods.

6. In the working area click the save symbol.

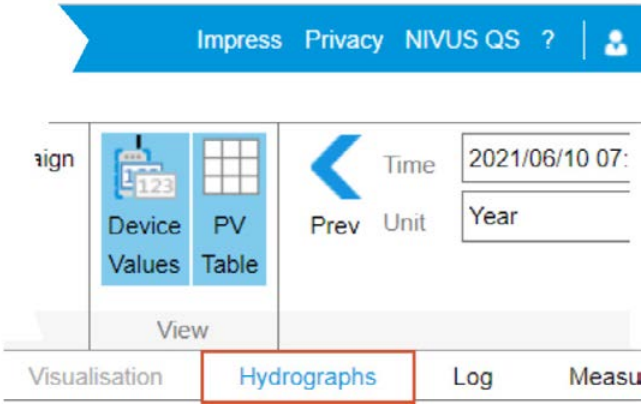


→ All changes will be saved.

Result

→ The process variable is saved in the chart as hydrograph and the representation parameters are configured.

Remember: Go to the > **Hydrographs** view to call up the chart.



Related links

Hydrograph: Configuration Options

6.3.9 Configuration of Hdrographs Reports

A hydrographs report is a PDF file of the diagram of a specific measuring point at a specific point in time. Under **Hydrographs Report** you can configure a template for the creation of these PDF diagram files at the selected measuring point. Based on this template, the PDF files are automatically created cyclically and sent by e-mail to specific users.

The configuration of hydrographs reports includes:

- activation / deactivation of the automated creation of reports
- cycle and frequency of reporting
- the user(s), who should receive the hydrographs report by e-mail

Observe the following precondition required for the creation of hydrographs reports:

- Automatic reporting is activated (= settings in the hydrographs report configuration).

6.3.9.1 Chart Report: Configuration Options

Below you can find a list of all available options for the configuration of chart reports.

The options each refer to the selected measuring point and hence to the diagrams created for the selected measuring point. The options are divided into 2 groups.

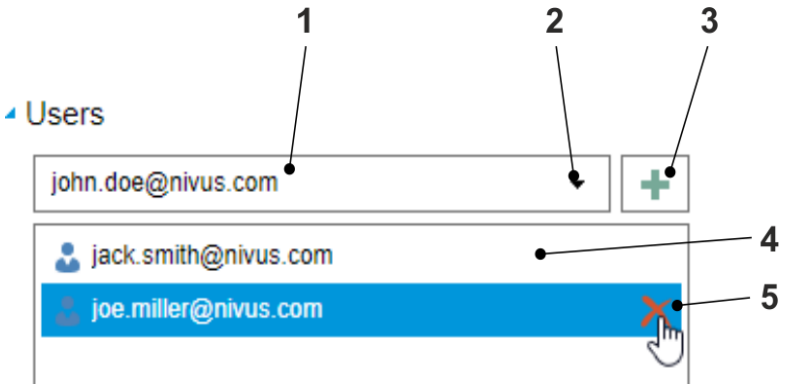
In the **Basic Information** you determine at which times a chart report is created and sent.

Tab. 6-31: Chart Report: **Basic Information**

Name	Description	Input
Active	Active status of automatic reporting for this measuring point	☑: Automatic reporting is activated ☐: No Reporting
Start Time	Reporting time	Time in format hh:mm
Time Zone	Time zone in which the start time is to be interpreted.	Select from list
Execution every	Reporting Cycle (= Execution Cycle)	Select from list
Every x day **Every x week** **Every x month**	Reporting frequency based on the execution cycle	Numerical value
Day	Depending on the execution cycle: Weekday or day of the month on which the chart report is generated.	Weekday: select from list **or** Day of a month: value between 1 and 31

In the **User** group you determine the recipients of the chart reports.

Abb. 6-33: Chart Report: **User**



1 Input field for a user

2 Opens the dropdown menu containing all users created in the project. Select a user as recipient for the chart reports here.

3 Assigns the selected user (**1**) to the recipients of chart reports (**4**)

4 List with all recipients of chart reports

5 Only visible on mouseover: Removes the user from the recipients list.

6.3.9.2 Configure Chart Reports

The following sequence provides an example on how to create and to edit a configuration as a basis for the automated creation and sending of chart reports.

Prerequisite(s)

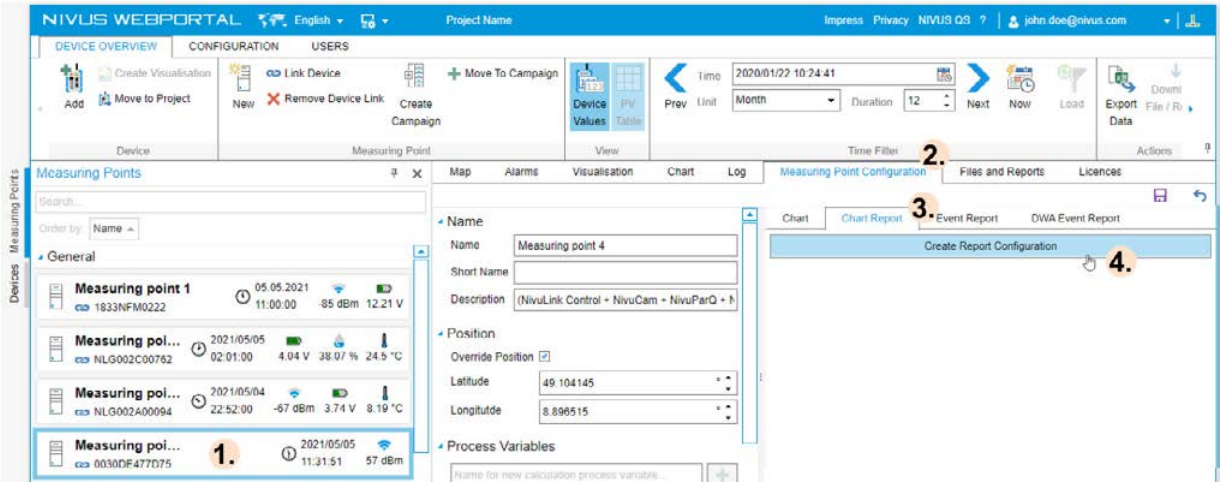
✓ You have the access rights for the **Hydrographs** sub-section and for the **Files and Reports** sub-section.

The following sequence provides an example on how to create and to edit a new configuration for the chart reports of a measuring point. If you wish to edit an existing configuration step 4 is not necessary.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



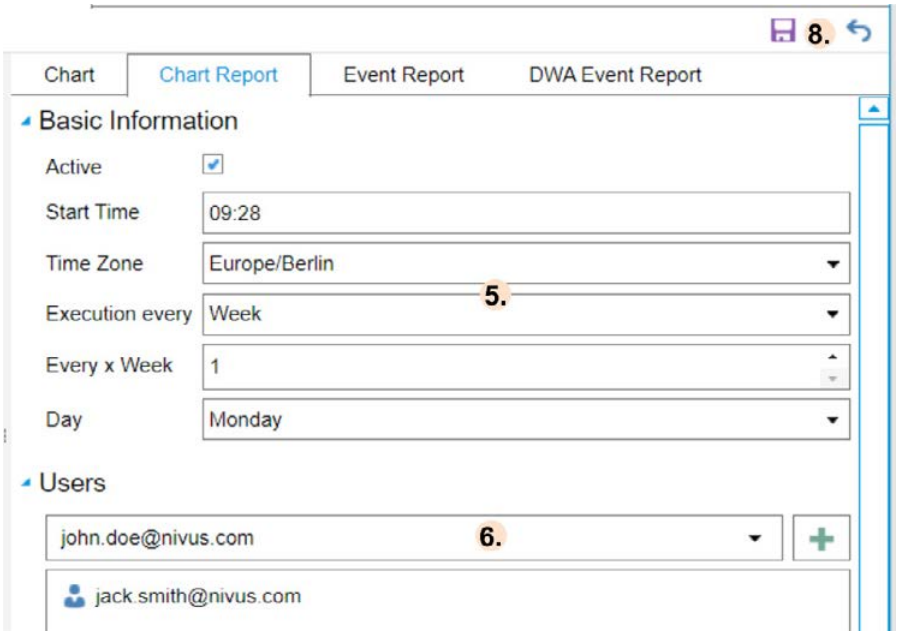
   → The measuring point is marked (blue frame).

   → All views in the working area show the data or information on the measuring point.

2. In the working area open the **Measuring Point Configuration** view
3. Open **Chart Report**
4. Optional: click **Create Report Configuration**

   → The report configuration is opened.

5. Edit **Basic Information**:
   - If desired, activate or deactivate automatic reporting
   - Configure time of execution, execution cycle and frequency as desired



6. Assign recipients of the chart reports:
   - Open the dropdown menu under **User** and select the desired user.
   - Click ➕
     → The selected user is transferred to the recipient list.
7. For all other recipients repeat step **6**
8. In the working area top left click the save symbol
   → All changes will be saved.

Result

→ The configuration for the automated creation and sending of chart reports is now created or changed.

6.3.10 Configuration of Event Reports and DWA Event Reports

For logging stormwater overflow tank events, you can create templates for automatic report generation. Each template applies for one measuring point. The following reports can be generated from these templates:

- **Event reports** for internal customer documentation
- **DWA Event Reports** are based on DWA specifications and are intended for upload to the DWA portal **Stormwater Overflow Tank Operation**

In the templates, you define the contents of the event reports or DWA event reports that are created for the selected measuring point. The following events can be logged:

- Duration and frequency of impoundage
- Duration and frequency of overflow
- Overflow Volume

The configuration of templates for event reports and DWA event reports comprises

- the activation / deactivation of the automated creation of event reports under > **Event Report**
  the activation / deactivation of the automated creation of DWA event reports under > **DWA Event Report**
- the configuration of basic information (output in the header)
- the definition of events to be logged with the following subdivision
  - Basic event = tank impoundage
  - Sub-event = max. basin level or basin overflow
- the calculation basis of the overflow volume

For DWA event reports additionally configure

- a DWA-compliant file name

The essential features of event reports and DWA event reports are:

Tab. 6-32: Event report and DWA event report: Features

Feature	Event Report	DWA Event Report
Basis	NIVUS Standard, DWA-compliant	DWA-compliant, especially for stormwater overflow tank operation
Output Format	PDF	CSV
Generation	Annual reports of the previous year each on the 3rd of January of the following year **and** Annual report of the current year on the 3rd day of each month. If there is an annual report from the previous month of the same year, it will be overwritten.	Monthly report of the previous month each on the 3rd day of the following month **and** Monthly report of the current month daily at 5.00 p.m. If there is a monthly report from the previous day of the same month, it will be overwritten.
Filing	NIVUS WebPortal > **Files and Reports**	NIVUS WebPortal > **Files and Reports**
File Name	Is generated automatically	Must be configured DWA-compliant

6.3.10.1 Validity of Events

If a certain start condition is fulfilled the event is valid and is evaluated as such for reporting. If a certain end conditions is fulfilled the end of the event occurs making the event invalid. This end of the event is evaluated for reporting.

Note: The basic event is decisive for reporting. Only if a basic element is valid it is possible to evaluate the accompanying sub-event for reporting.

Start Condition

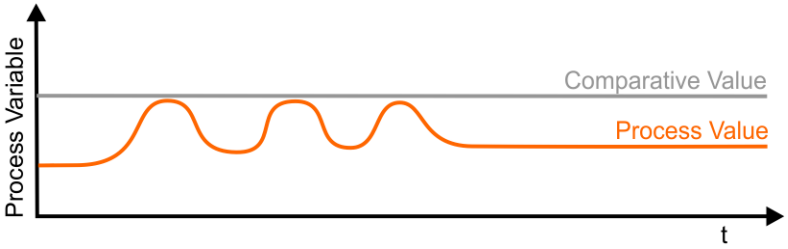
The following start condition marks the beginning of an event:

- The process value is greater than the **Comparative Value for Start** over the duration of the **Debounce Time for Start**.

If the Start condition is fulfilled the event is valid and is evaluated as such for reporting.

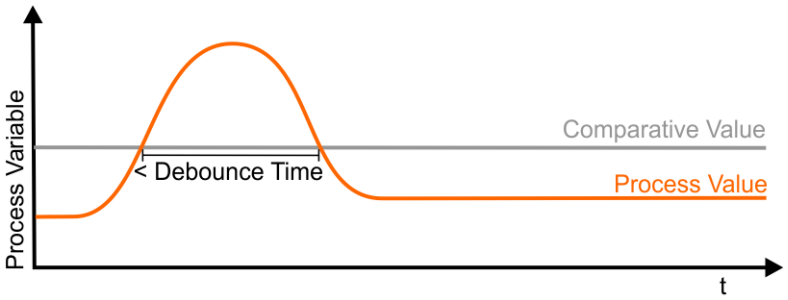
The following figure shows a situation where the process value is permanently below the comparative value. The Start condition is not fulfilled. No event is occurring.

Abb. 6-34: No Event, Process Value < Comparative Value



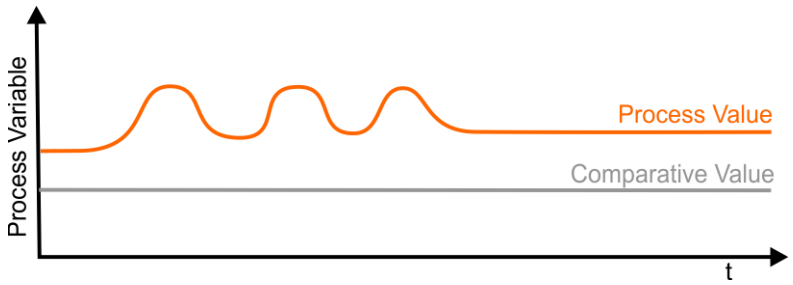
The following figure shows an event where the process value rises above the **Comparative Value for Start**, but the **Debouncing Time for Start** has not been reached. The Start condition is not fulfilled. The event is invalid.

Abb. 6-35: Invalid Event, Process Value > Comparative Value, but shorter than debouncing time



The following figure shows an event where the process value rises above the **Comparative Value for Start** and the **Debouncing Time for Start** is exceeded. The Start condition is fulfilled. The event is valid.

Abb. 6-36: Valid Event, Process Value > Comparative Value and debouncing time exceeded



Configuration Example of Start Condition

Configuration:

- **Comparative value for start**: 0.3 m
- **Debouncing time for start**: 30 s

This results in the following start condition:

- Process value length is 30 s > 0.3 m

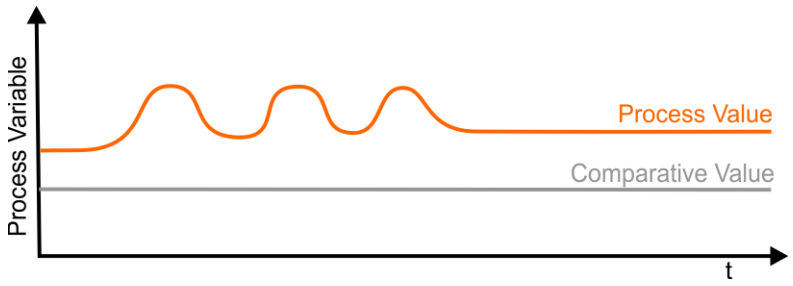
End condition

The following end condition marks the end of an event:

- The process value is smaller than the **Comparative Value for End** over the duration of the **Debouncing Time for End**.

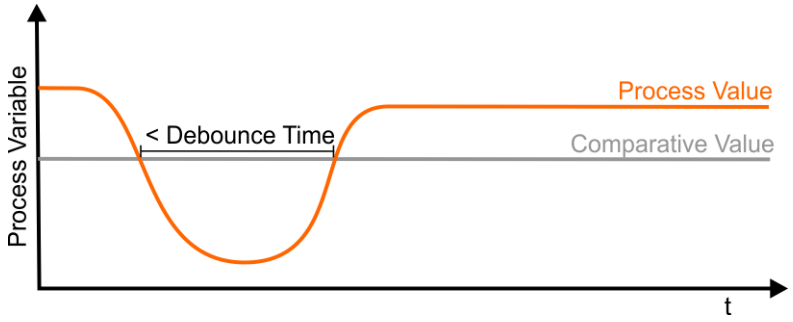
The following figure shows an event where the process value is permanently above the **Comparative Value for End**. The End condition is not fulfilled. The event remains to be valid

Abb. 6-37: No End of Event: Process Value > Comparative Value



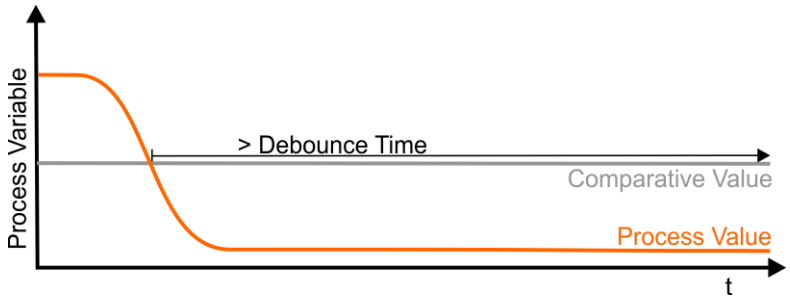
The following figure shows an event where the process value falls below the **Comparative Value for End**, but the **Debouncing Time for End** has not been reached. The End condition is not fulfilled. The event remains to be valid

Abb. 6-38: No End of Event: Process Value < Comparative Value, but shorter than debouncing time



The following figure shows an event where the process value falls below the **Comparative Value for End** and the **Debouncing Time for End** is exceeded. The End condition is fulfilled. The event has ended.

Abb. 6-39: End of Event: Process Value < Comparative Value and debouncing time exceeded



Configuration Example of End Condition

Default configuration based on the end condition:

- **Comparative Value for End** = **Comparative Value for Start** - 0.05 m = 0.3 m - 0.05 m = 0.25 m
- **Debouncing Time for End**: 30 s

This results in the following end condition:

- Process value length is 30 s < 0.25 m

6.3.10.2 Event Report / DWA Event Report: Configuration Options

Below you can find a list of all available options for the configuration of templates for event reports and DWA event reports.

You can find the configuration options under > **Measuring Point Configuration > Event Report** or under > **Measuring Point Configuration > DWA Event Report**

Note: The creation of event reports and DWA event reports is based on the same template. If a template for event reports is configured, then this is displayed under > **Event Report** and is also valid for the creation of DWA event reports. In this case, you only need to configure the file name for the reports to be created and the active status of the report creation under > **DWA Event Report**. If only a template for DWA event reports is configured, then this is displayed under > **DWA Event Report**.

The options each refer to the selected measuring point and hence to the contents of the event reports or DWA event reports created for the measuring point. The options are divided into 4 groups.

The following **Basic Information** is shown in the report header when the report is created.

Tab. 6-33: Event Report: **Basic Information**

Name	Description	Entry
Active	Active status of automatic reporting for this measuring point and all other configuration options ***Note:*** *Activate creation and configuration of event reports under* **> Event Report**. *Activate creation and configuration of DWA event reports under* > **DWA Event Report**.	☑: Automatic reporting and all other configuration options are activated ☐: No Reporting and no configuration possible
Pass-Through Tank	Selection of the tank type	Enter X to select the pass-through tank, otherwise no entry
Intercepting Tank	Selection of the tank type	Enter X to select the intercepting tank, otherwise no entry
Wastewater Treatment Plant	Name of the wastewater treatment plant	Free text
Measuring Device checked	Date of last check or review cycle	Free text
SO above	Number of available or planned storm-water overflows above	Numerical value
SOT above	Number of available or planned storm-water overflow tanks above	Numerical value
Special Structure	Name of special structure	Free text
Location	Name of location	Free text
Company	Name of company	Free text

In the groups **Basic Event - Tank Impoundage** and **Sub-Event** each configure the events (beginning and end of event) that are to be logged.

Tab. 6-34: Event report: **Basic Event = Tank Impoundage**

Name	Description	Entry
PV for basic event	PV for the determination of beginning and end of event	Click ➕ and select PV with double click
Comparative value for start [m]	Comparative value for beginning of event	Numerical value
Debouncing time for start [s]	Debouncing time in seconds for beginning of event	Numerical value
Comparative value for end [m]	Comparative value for end of event	Not editable, is computed by the system: Comparative value for start + 0.05
Debouncing Time for End	Debouncing time in seconds	Not editable, = Debouncing time for start
PV for max. water level	Determination of max. water level	Click ➕ and select PV with double click
Debouncing time for max. level [s]	Debouncing time in seconds related to the max. water level	Numerical value

Tab. 6-35: Event Report: **Sub-Event**

Name	Description	Entry
Overflow type		Select from list with the options: **Sewage Overflow** **Basin Overflow**
PV for sub-event	PV for the determination of beginning and end of event	Click ✚ and select PV with double click
Comparative value for start [m]	Comparative Value in meters for beginning of event	Numerical value
Debouncing time for start [s]	Debouncing time in seconds for beginning of event	Numerical value
Comparative value for end [m]	Comparative value in meters for end of event	Not editable, is computed by the system: Comparative value for start + 0.05
Debouncing time for end [s]	Debouncing time in seconds for end of event	Not editable = debouncing time for start

In the **Overflow Volume** group configure the according calculation.

Tab. 6-36: Event Report: **Overflow Volume**

Name	Description	Entry
Measurement	Measurement method used as calculation basis for overflow volume.	Select from list with the options: **Level (h)** **Flow (q)**
PV	PV for calculation of overflow volume	Click ✚ and select PV with double click
Debouncing time [s]		Numerical value
Weir height (w=0) [m] (Only available for measurement = level)		Numerical value
Subtract weir height (w0) from level (h) (Only available for measurement = level)	Definition of height h_V for the calculation of the overflow volume	☑: h_V = Level - Weir Height ☐: h_V = Level
Weir width (b) [m] (Only available for measurement = level)		Numerical value
Overflow coefficient (Only available for measurement = level)		Numerical value

6.3.10.3 Configure Templates for Event Reports

The following sequence provides an example on how to create and to edit a template for the automated creation of event reports.

Prerequisite(s)

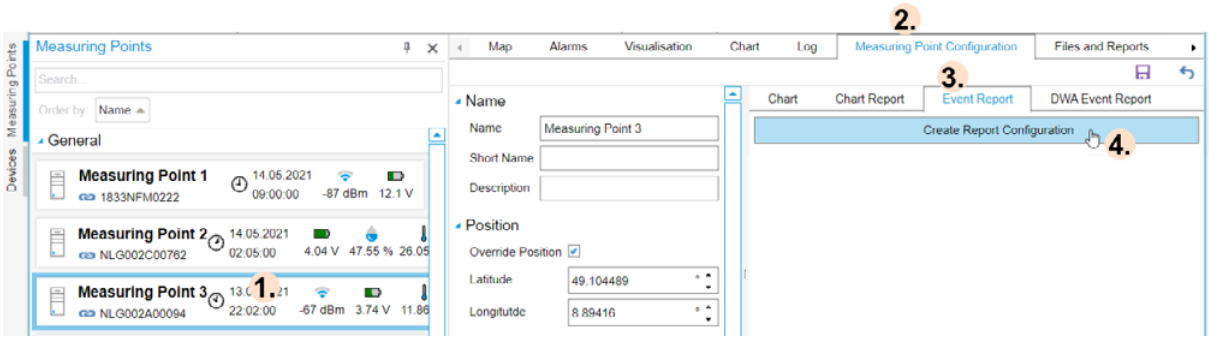
✓ You have teh access rights for the **Files and Reports** sub-section.

The following sequence describes how to create and to edit a new template for the event reports of a measuring point. If you wish to edit an existing configuration step 4 is not necessary.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



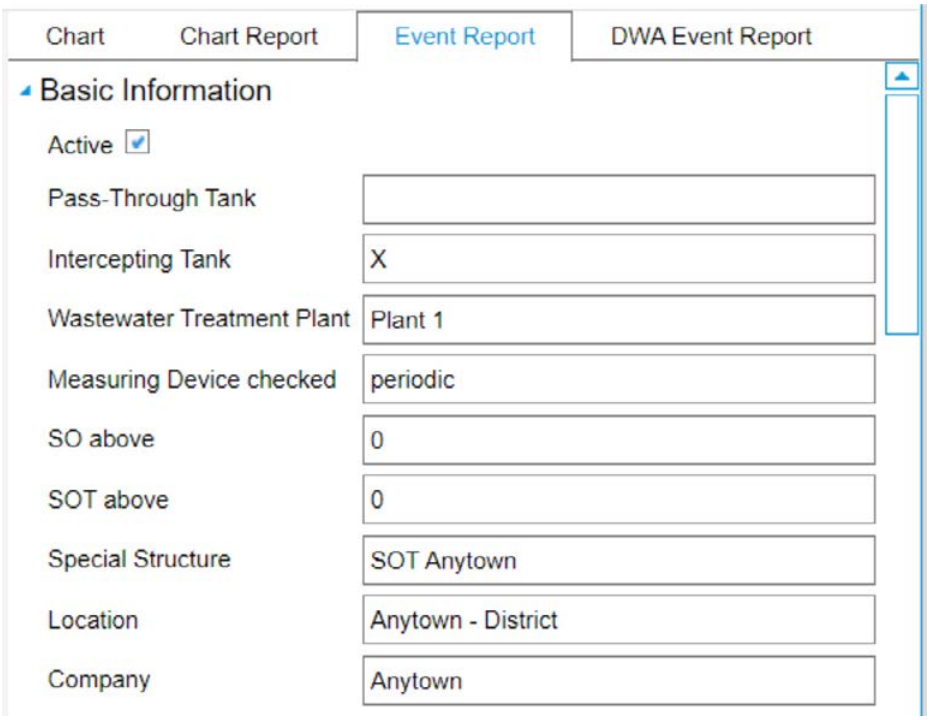
   → Measuring point is highlighted (blue frame).

   → All views in the working area show the data or information on the measuring point.

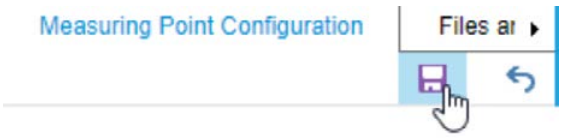
2. In the working area open the **Measuring Point Configuration** view
3. Open **Event Report**
4. Optional: click **Create Report Configuration**

   → The report configuration is opened.

5. Edit **Basic Information**:
   - If desired, activate or deactivate automatic reporting
   - Mark the basin type (**Intercepting Tank** or **Pass-Through Tank**) with an X.
   - Overwrite all further basic information depending on the facility



6. Configure **Basic Event - Tank Impoundage**:
   - Click **PV for basic event** > ✚ and select PV with double-click
     → The PV is accepted for the report configuration.
   - Specify comparative value and debouncing time for the beginning of the event
     → Comparative value and debouncing time for the end of the event are calculated by the system.
   - Click **PV for max. water level** > ✚ and select PV with double-click
     → The PV is accepted for the report configuration.
   - Specify the debouncing time for the maximum water level
7. Configure **Sub-Event**:
   - Click **PV for sub-event** > ✚ and select PV with double-click
     → The PV is accepted for the report configuration.
   - Specify comparative value and debouncing time for the beginning of the event
     → Comparative value and debouncing time for the end of the event are calculated by the system.
8. Configure the calculation basis for the **Overflow Volume**:
   - Open drop-down menu and select the measurement method to use as basis for the calculation
   - Click **PV** > ✚ and select PV with double click
     → The PV is accepted for the report configuration.
   - Specify the debouncing time for the maximum water level
   - Edit all further options
9. In the working area click the save symbol



   → All changes will be saved.
   → The current settings are automatically saved as a PDF file in the download directory of your browser.

Result

→ The template for the automated creation of event reports is now created or changed.

Remember: Go to the **Files and Reports** view to call up the created monthly and annual reports.

6.3.10.4 DWA Report: Configuration

The following applies for the configuration of templates for DWA event reports:

- If a template for automatic report generation is created under > **Event Report**, then this is also valid for DWA event reports. In this case, configure only the active status and the file name under > **DWA Event Report**.
- If no template for automatic report creation has been created under > **Event Report**, then you will find all configuration options for the automatic creation of DWA event reports under > **DWA Event Report**.
- You must configure the file name for DWA event reports according to DWA specifications. The file name is user-specific. You can query the file name in the DWA portal **RÜB-Betrieb** under **FTP Upload > Dateinamen für diesen Benutzer**

6.3.10.5 Configure Templates for DWA Event Reports

The following sequence provides an example on how to create and to edit a template for the automated creation of DWA event reports.

Prerequisite(s)

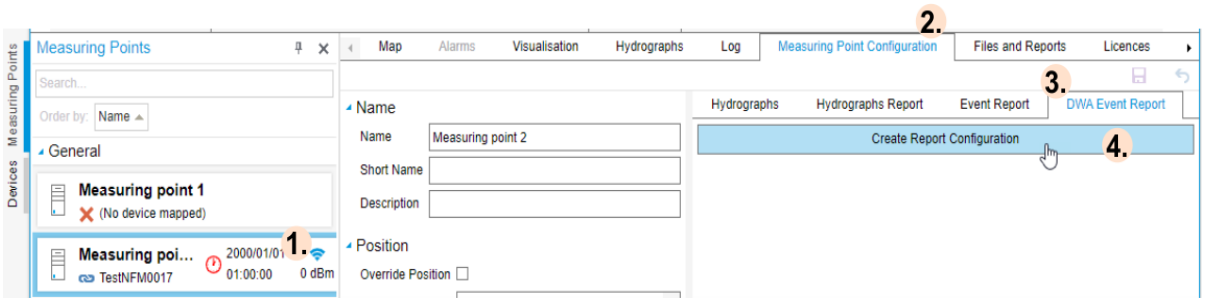
✓ You have the acces rights for the**Files and Reports** sub-section.

The following sequence describes how to create and to edit a new template for the DWA event reports of a measuring point. If you wish to edit an existing configuration step 4 is not necessary.

Procedure

1. In the measuring point overview select the measuring point

   ⓘ Once the devices list is open you can select the device which is connected with the desired measuring point.



   → Measuring point is highlighted (blue frame).

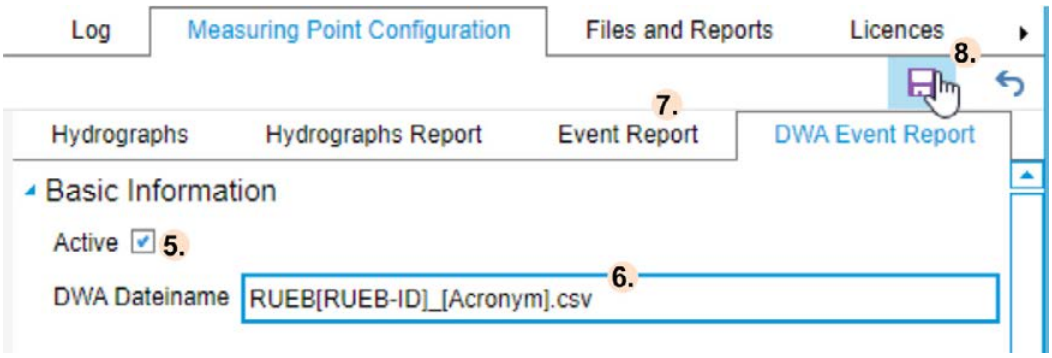
   → All views in the working area show the data or information on the measuring point.

2. In the working area open the **Measuring Point Configuration** view
3. Open **DWA Event Report**
4. Optional: click **Create Report Configuration**

   → If no event report template is configured yet: The report configuration opens with all configuration options.

   → If a template for event reports is already configured: The report configuration is only opened with the DWA-specific options (active status and file name). The remaining configuration options are displayed under > **Event Report**.

5. If desired, activate or deactivate automatic reporting



6. Enter **DWA File Name**

   ⓘ The file name is pre-determined by DWA and is user-specific. You must investigate the file name in the DWA portal **RÜB-Betrieb** under **FTP-Upload > Dateiname für diesen Benutzer**.

7. Edit all further options

Prerequisite	Procedure
No further options are shown here.	Open > **Event Report**. Here you will find the other options that apply to both event reports and DWA event reports and you can edit them if necessary.
All further options are shown here.	Configure all other options in the **Basic Information**, for the **Basic Event - Basin Impoundage**, for the **Sub-Event** and for the **Overflow Volume**. Detailed description see **Configure Templates for Event Reports**

8. In the working area top left click the save symbol
   → All changes will be saved.
   → The current settings are automatically saved as a PDF file in the download directory of your browser.

Result

→ The template for the automated creation of DWA event reports is now created or changed.

Remember: Go to the **Files and Reports** view to call up the created monthly and annual reports.

Related links
Configure Templates for Event Reports

6.3.11 Files and Reports

The > **Files and Reports** view lists all files which are saved in the database and are assigned to the measurement point selected in the navigation area.

Prerequisite:
- The user is authorised for the **Files and Reports** sub-section.

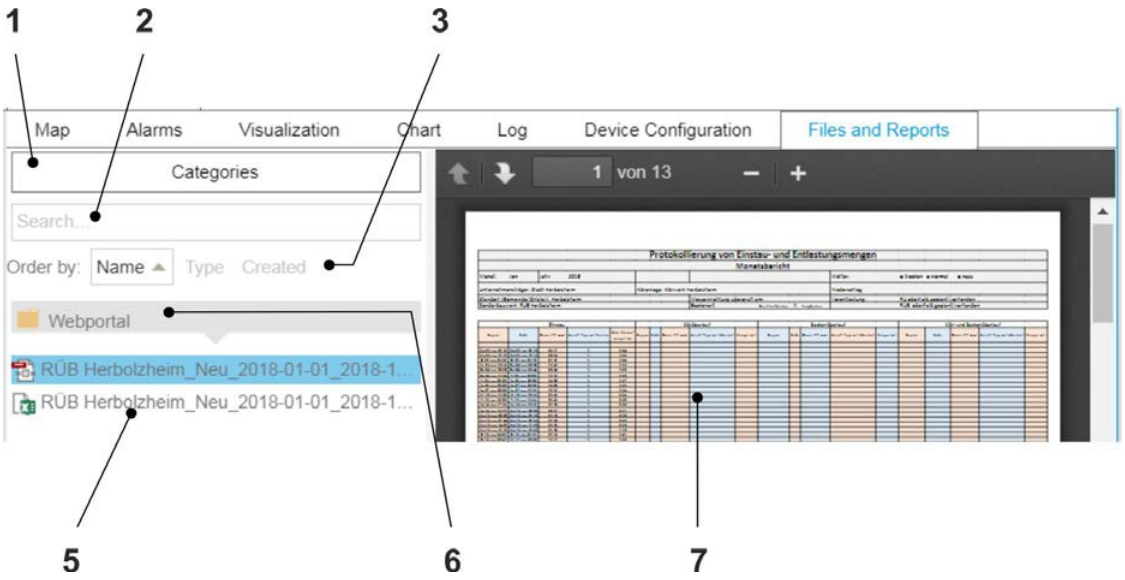
The linked files include:
- Event reports according to customer configuration (tab **Measurement Point Configuration > Event Report**)
- DWA event reports according to customer configuration (tab **Measurement Point Configuration > DWA Event Report**)
- Periodic reports created automatically with the aid of the SNI0WEBPRUEB add-on.
- Customer-specific reports based on Excel (extra service SNI0BEREXCEL01).

You can download the linked files.

Related links
Configuration of Event Reports and DWA Event Reports

6.3.11.1 Overview View Files and Reports

Abb. 6-40: Working Area: View **> Files and Reports**



1 Opens the file categories filter

2 Full text search

3 Sort function by
Name: File name
Type: File format
Created: Date of creation

4 Views selection menu, here: the **> Files and Reports** view is opened.

5 List of files linked to the measuring point which is selected (highlighted blue) in the navigation area. The selected file is highlighted blue.

6 Project name

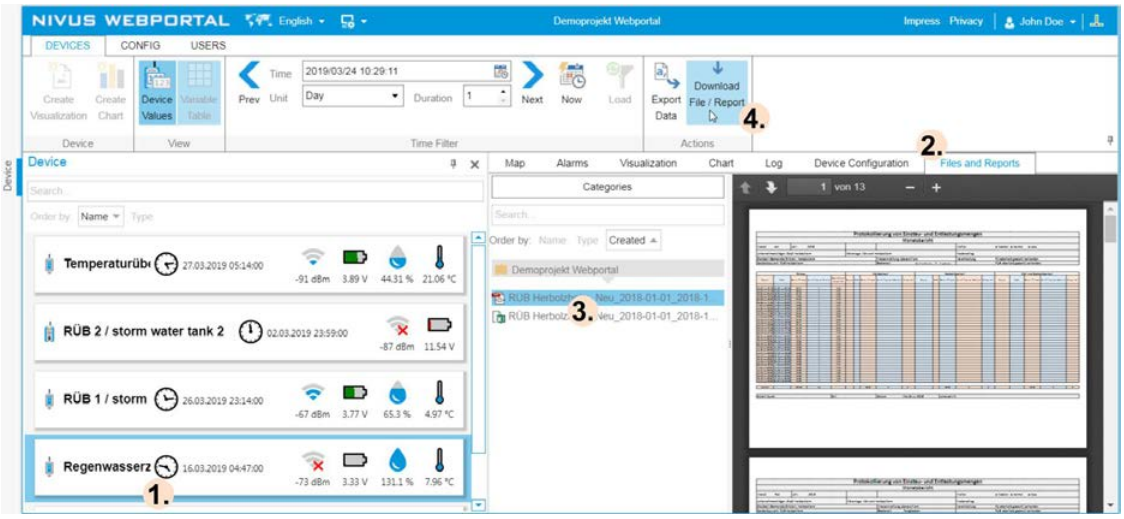
7 File preview: shows the file selected in the files list (**5**).

6.3.11.2 Download linked File

Prerequisite(s)

✓ The **Device Overview** tab is open.

Abb. 6-41: Download linked File



Procedure

1. Select device from the devices list.
   → The device is marked (highlighted blue).
   → In the working are the views selection menu is shown.
2. Open **> Files and Reports** view
3. Select file
   → The file is marked (highlighted blue) and is shown in the preview.
4. In the function bar click **File / Download Report**

Result

→ The file is saved in the download directory of the browser.

6.3.12 Licences

In the > **Licences** view the licences for additional services activated at the selected measuring point , the licences for additional services activated at the selected device and the available licences for additional services of the project are displayed. You must activate the licences for additional services once in the NIVUS WebPortal at a measuring point or on a device in order to activate the corresponding function.

Note: The following information on licences applies to orders as of 2022. All information on licences from older orders can be found in the manual **NIVUS WebPortal Rev. 03**.

For **Measuring Point Licences** the following applies:

- Assignment measuring point licence to measuring point = n : 1.
- All licences for the use of the NIVUS WebPortal include one measuring point licence. This allows you to operate each unit at at least one measuring point.
- Optionally, you can purchase licences for additional services at measuring points. You can activate licences for multiple additional services at one measuring point. This assignment is final and cannot be changed later.
- You can purchase additional measuring point licences for additional measuring points. If you have free measuring point licences, you can create additional measuring points.

For **Device Licences** the following applies:

- Assignment device licence to device = n : 1.
- A device has at least one SIM card licence.
- Optionally, you can purchase licences for additional services. You can activate licences for several additional services on one device. You must then unlock the according function on the device by using the licence code. The licence - device assignment is linked to the serial number of the device and is therefore final and cannot be changed later.

Related links

Activation of Licences for Additional Services
Device Licences: Licence Code

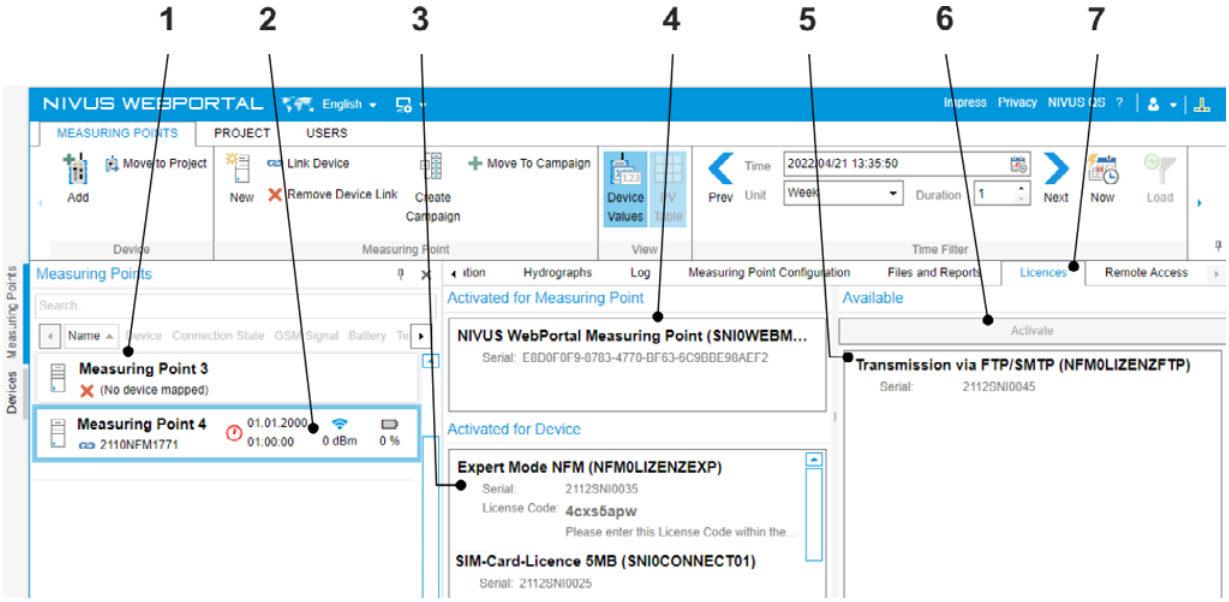
6.3.12.1 Overview Licences View

Note: The **Licences** view always refers to the selected measuring point **and** to the device at the measuring point. Therefore, you can select the measuring point **or** the linked device in the navigation area to call up all associated measuring point licences **and** device licences.

The figure below shows a > **Licences** view example by using a measuring point including device with the following properties:

- No additional services are activated for the measuring point and no additional services are available.
- There is one additional service activated for the device and there is another additional service available.

Abb. 6-42: > **Licences** View



1 Navigation area with measuring points overview / devices list

2 Selected measuring point (blue frame)
The licence information shown in the working area refer to this measuring point and to the device at the measuring point.

3 Activated device licences of the device at the selected measuring point

4 Activated measuring point licences of the selected measuring point

5 Overview of the free licences for measuring point-related and device-related additional services of the project

6 Activates a licence for the selected measuring point or the linked device in the NIVUS WebPortal (active only if an available licence is selected)

7 Selection menu for the views, here: the > **Licences** view is opened.

6.3.12.2 Activate Measuring Point or Device Licence

The following sequence describes how to activate a licence in NIVUS WebPortal by using a device licence as example. If you wish to activate a measuring point licence proceed as described previously.

Prerequisite(s)

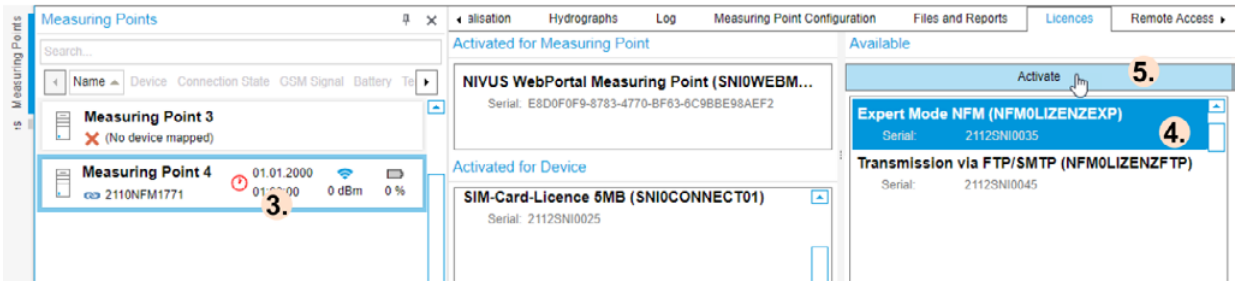
- ✓ You have received the link for initial access to NIVUS WebPortal and you have created your customer project.
- ✓ You have received an overview on ordered devices and the according licences via email. In this case the NIVUS devices are created in NIVUS WebPortal and the according licences are saved in the NIVUS WebPortal.
- ✓ The devices and measuring points haven been created in NIVUS WebPortal for you.
- ✓ You have added at least on device to your customer project since before that it is not possible to call up the > **Licences** view (select device) in the working area.
- ✓ You have administrator rights.

Important: Each licence can be assigned to a measuring point / a device only once. This assignment **cannot be changed** and **cannot be undone**. Prior to assignment make sure to have the correct measuring point / the correct device selected.

Remember: The **Licences** view always refers to the selected measuring point **and** to the device at the measuring point. Therefore, you can select the measuring point **or** the linked device in the navigation area to call up all associated measuring point licences **and** device licences.

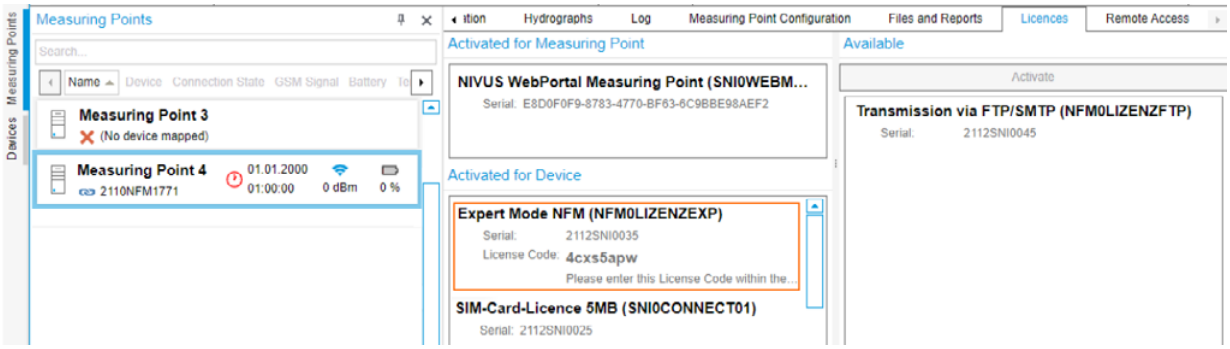
Procedure

1. If in the working area only the > **Map** view is available: Select any measuring point in the navigation area.
   → In the working area the > **Licences** view and all other available views are indicated.
2. Open > **Licences** view
   → In the working area the licences for the measuring point / the device are shown which is selected in the navigation area.
3. In the navigation area select the measuring point / the device you wish to assign to a certain licence.
   → All licences which can be assigned to the selected measuring point / the selected device are shown in the **Available** field.
   → All licences which are previously assigned to the selected measuring point are shown in the **Activated (Measuring Point)** field.
   → All licences which are previously assigned to the selected device are shown in the **Activated (Device)** field.



4. Select the desired licence in the **Available** field.
   → The licence is highlighted blue.

5. Click **Activate**.
   → Measuring point licence: the licence is removed from the **Available** field and moves to the **Activated (Measuring Point)** field. The function is unlocked on the measuring point.
   → Device licence: the licence is removed from the **Available** field and moves to the **Activated (Device)** field. The licence key for device licences to unlock the function on the device is shown here as well.



After Completing This Task

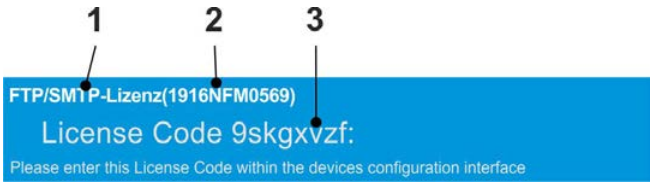
Only for device licences: unlock the function on the NIVUS devices by using the licence key (see Instruction Manual / Handbook of the respective device).

6.3.12.3 Device Licences: Licence Code

When you assign a licence code to a device and the activate it, the licence code is shown in the working area in the **Activated** field. This is required in order to unlock the according function on the device (procedure see Instruction Manual / Handbook of the device).

Note: FTP/SMTP licences for remote data transmission are device licences allowing remote data transmission independent from the NIVUS WebPortal. These licences must be activated once per device in the NIVUS WebPortal.

Abb. 6-43: Licence for Remote Data Transmission via FTP/SMTP as Example for an activated Device Licence.



1 Licence type (name)
2 Serial number of the device to which the licence is assigned
3 Licence code: you need the licence code to unlock the according function on the device.

6.3.13 Remote Access

Via remote access, you can access devices with remote access function directly from the NIVUS WebPortal.

Prerequisites:

- The device is equipped with a remote access function.
- A remote access licence is activated for the selected device (additional service at extra charge).
- The user has administrator rights.

The following applies for remote access:

- Devices permanently online and connected to NIVUS WebPortal: Remote access is possible at any time.
- Devices that are not permanently online and only connect to the NIVUS WebPortal cyclically: Remote access is only possible within a predefined time window. You define the time window by using a **Wake Up Command**.

The following applies for Wake Up Commands:

- A Wake Up Command is the point in time when the unit connects to NIVUS WebPortal for remote access.
- The Wake Up Command is sent to the device at the next cyclic connection. Therefore, the Wake Up Command must be after the next cyclic connection with the device.
- If the Wake Up Command reaches the unit in time and the unit connects to the NIVUS WebPortal for remote access at the time of the Wake Up Command, the connection will remain for 10 minutes. You can start remote access within this time window. The connection is maintained for the duration of the remote access, even if it exceeds 10 minutes.
- You must configure a new Wake Up Command for each scheduled remote access.
- There is always only one active Wake Up Command. If there is a Wake Up for a device and you configure another Wake Up command, the original Wake Up command is overwritten.
- If you miss the time window for remote access, then the next opportunity for remote access is after the next cyclic connection between the unit and the NIVUS WebPortal. For this you must configure a new Wake Up Command.

Configuration Example of a Wake Up Command

Prerequisites:

- Cyclic connection between unit and NIVUS WebPortal: daily at 6.00 p.m.
- Time of configuration: 01.08.2021, 10.00 p.m.

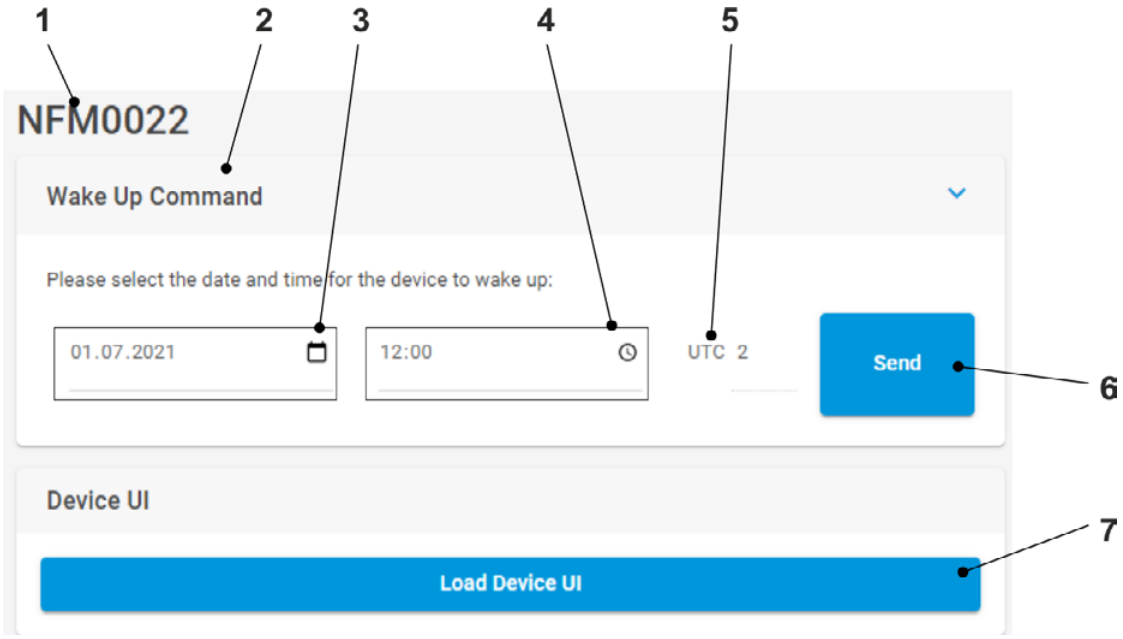
The result is:

- Wake Up Command: 01.08.2021 noon
  No connection establishment, no remote access possible!
  The Wake Up Command is after the time of configuration but before the next cyclic connection. The Wake Up Command will not be sent to the unit until 6.00 p.m. on 01.08.2021. Therefore, the device cannot connect to the NIVUS WebPortal on 01.08.2021 at noon .
- Wake Up Command: 02.08.2021 noon
  Connection setup on 02.08.2021 at noon , start of remote access possible until 12.10 p.m.!
  The Wake Up Command is after the time of configuration and after the next cyclic connection. The Wake Up Command is sent to the unit on 01.08.2021 at 6.00 p.m. and the unit connects to the NIVUS WebPortal on 02.08.2021 at noon for at least 10 minutes.

6.3.13.1 Overview Remote Access View

The following illustration shows the **Remote Access** view using an example configuration of the Wake Up Command that has not yet been sent to the device.

Abb. 6-44: Working Area: > **Remote Access View**



1 Serial number of the selected device
2 Configuration of Wake Up Command
3 Calendar and input field for the date
4 Time selection and input field for the time
5 Time zone (not editable)
6 Sends the configuration of the Wake Up Command to the device
7 Starts remote access
Precondition: there is a connection to the device established.

6.3.13.2 Configure and Start Remote Access

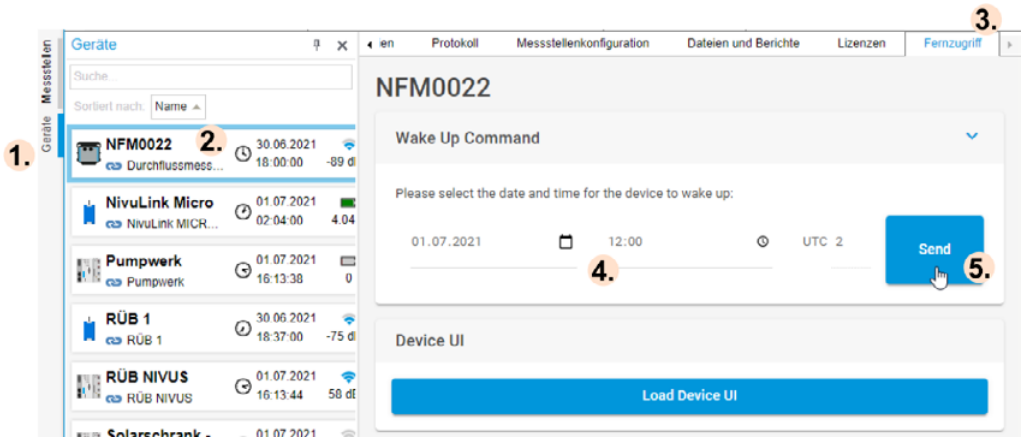
The following procedure describes an example of how to configure and start remote access for a device that connects cyclically to the NIVUS WebPortal. For units with a permanent connection to the NIVUS WebPortal, the configuration of the Wake Up Command (steps 4 and 5) is omitted.

Prerequisite(s)

✓ The device is operated with a NIVUS SIM card.
✓ You have administrator rights.

Procedure

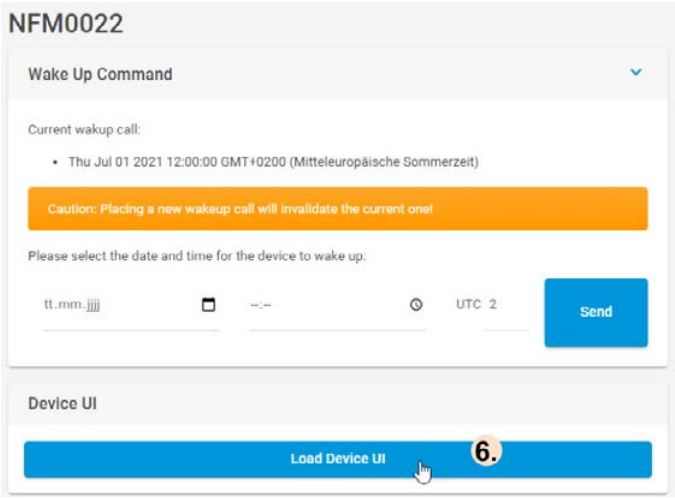
1. In the navigation area open the **Devices** tab



2. Select device from the devices list
   → The device is marked (blue frame).
   → All views in the working area show the data or information on the measuring point to which the device is linked.
3. Open **Remote Access**
   → Remote access to the selected unit opens.
4. Configure Wake Up Command (= time of scheduled remote access):
   ⓘ The time of the scheduled remote access must be after the next cyclic connection between the unit and the NIVUS WebPortal.
   - Open calendar and select the date for the Wake Up Command
   - Open the time selection and enter the time for the Wake Up Command
5. Click **Send**
   → The Wake Up Command is sent to the device at the next cyclic connection.

6. Start Remote Access:

Connection between device and NIVUS WebPortal	Procedure
Cyclic	Click on **Load Device UI** no later than 10 minutes after the time of the Wake Up Command.
Permanent	Click **Load Device UI** (possible at any time).



Result

→ The configuration interface of the device is called up in the NIVUS WebPortal and you can operate the device (see the manual of the device).

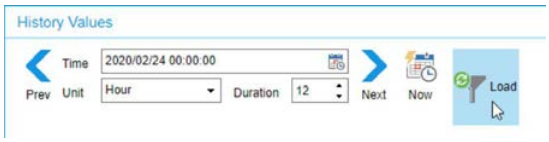
6.4 Export Device Values

You can export device values recorded on a measuring point over a certain period as a file.

Note: By default, device values are exported as CSV file. You need an according licence if you wish to export to a different format.

Procedure

1. In the measuring point overview select the measuring point
   - ⓘ Once the devices list is open you can select the device which is currently connected with the desired measuring point.
   - → The measuring point is marked (blue frame).
   - → The views in the working area show the data or information on the measuring point.
2. Specify time range
   - Open the calendar and select the end time of the desired time range



   - Select unit and duration of the desired time range
   - Click **Load**
3. Export device values:
   In the function bar click **Actions > Export Data**
   or in the working area > view **Hydrographs** > PV area click **Export**

Result

→ The device values are exported as csv file and are saved in the download directory of your browser.

Related links

Configuration of CSV Export Files

7 Project tab

Note: The > **Project** tab is available only to the user with administrative rights.

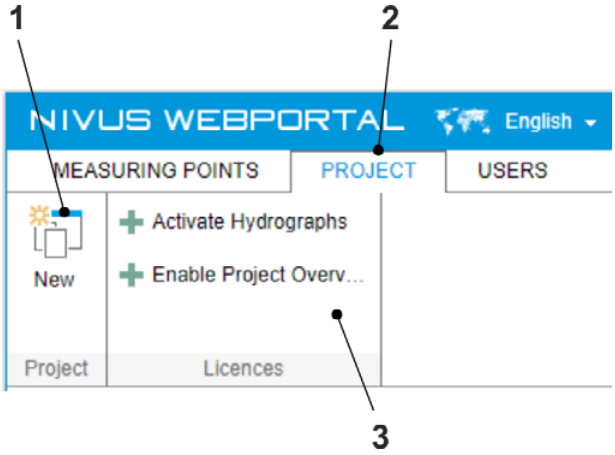
In the > **Project** tab you will find functions and configuration options that are valid for the whole project. This includes

- configuring the export file
- creating hydrograph templates
- creating a new project (additional service at extra charge)
- activating project licences for project-related additional services

7.1 Function Bar

> **Project**

Abb. 7-45: Function Bar in the **Project** tab



1 Only active if you have purchased a licence for an additional project licence; opens the **Create New Project** window

2 **Project** tab

3 **Licences** group: Here you activate the project licences for the measuring point handling or the hydrograph module for all measuring points (additional services at extra charge).
The options are only active if a corresponding licence is available for the project but not yet activated.

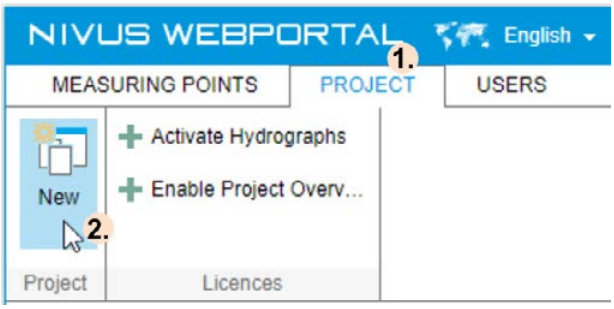
7.1.1 Create Additional Project

Prerequisite(s)

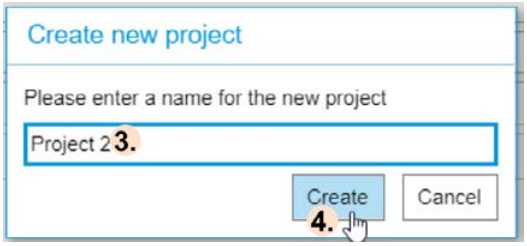
✓ You have acquired an additional **NIVUS WebPortal Project License** which was activated by NIVUS.
✓ You have administrator rights.

Procedure

1. Open the > **Project** tab



2. Click **Project > New**
   → The **Create new project** window opens
3. Specify a name for the new project



4. Click **Create**

Result

→ The additional project is created, the project configurations are taken over from the original project. You can open the new project using the same access data as for the current project.

7.1.2 Activate Project Licence

If you have acquired a project licence for an additional service, you must activate this licence once. Only then are the corresponding functions activated.

Prerequisite(s)

✓ You have purchased a licence for the project for the hydrograph module covering all measuring points or for a customer-specific project overview (additional services subject to a charge).
✓ You have administrator rights.

Procedure

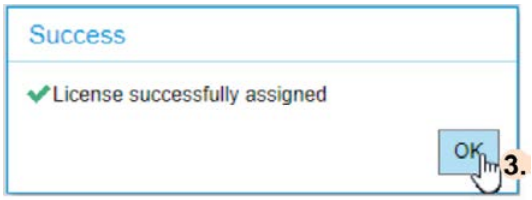
1. Open the > **Project** tab

2. Activate Licence

Project Licence for	Procedure
Cross-Measuring Point Hydrograph Module	Click on Function Bar: **Licences > Activate Hydrographs**
Project Overview	Click on Function Bar: **Licences > Activate Project Overview**

→ The success message opens.

3. Confirm with **OK**



Result

→ The additional service is enabled.

7.2 Working Area

In the working area you will find all the configuration options that are valid for the whole project.

At the top right you will find the following storage options:

- : Saves all entries / changes
- : Undoes all unsaved changes, i. e. all configurations are reset to the last saved state

The working area is divided into the following groups:

- **Standard**
- **Export** for the configuration of CSV export files
- **Hydrograph Templates** for the configuration of hydrograph templates across measuring points

7.2.1 Standard Configurations

Tab. 7-37: Project > Standard

Name	Description	Entry
Language	Project language, standard texts in the message book are output in the project language.	Select from list
Show Map	Indication of map under **Measuring Points > Map**	☑: The map is shown. ☐: The map is hidden.

7.2.2 Configuration of CSV Export Files

In the > **Export** group you configure the settings for data export in CSV standard format.

Remember: Start data export under **Measuring Points** > Function Bar: **Actions > Export Data** or under **Measuring Points** > Working Area: **Hydrographs > Export**

Tab. 7-38: Project > Export

Name	Description	Entry
Single Date-Time-Column	Number of Columns for Date and Time	☑: Output of date and time in one column ☐: Output of date and time in in 2 columns
Use fix UTC Offset	Calculation basis for the times in the export file	☐: Times are output in the defined time zone ☑: Times are output based on UTC with or without offset
Only available when the UTC Offset is activated: **UTC Offset**		Select from list
Only available when the UTC Offset is deactivated: **Time Zone**	Time zone for the times in the export file	Select from list
Substitution Mode	Substitution mode for data gaps	Options: **Zero**: substitute value = 0 **Substitute Value**: replaces the data gap by the substitute value **Previous value**: replaces the data gap by the latest valid value **Next value**: replaces the data gap by the next valid value
Substitute Value	If **Substitution Mode** = **Substitute Value** Input field for the substitute value	Numerical value
Culture Info	Country code of the desired cultural area. The country code causes adjustments to table formatting and language.	Select from list
Field Delimiter	Field delimiter in the CSV file	Depending on the further processing of the export file
Exclude PV ConnectionStatus		☑: The PV ConnectionStatus is excluded from data export ☐: The PV ConnectionStatus is exported

7.2.3 Configuration of Hydrograph Templates

Using hydrograph templates, you can pre-configure hydrographs for specific process variables.

The following applies for hydrograph templates:

- The identifier for the application of hydrograph templates is the short name of the PV.
  If the hydrograph template name and the PV short name match, then the hydrograph template is applied to the process variable.

Hydrograph templates are used as follows:

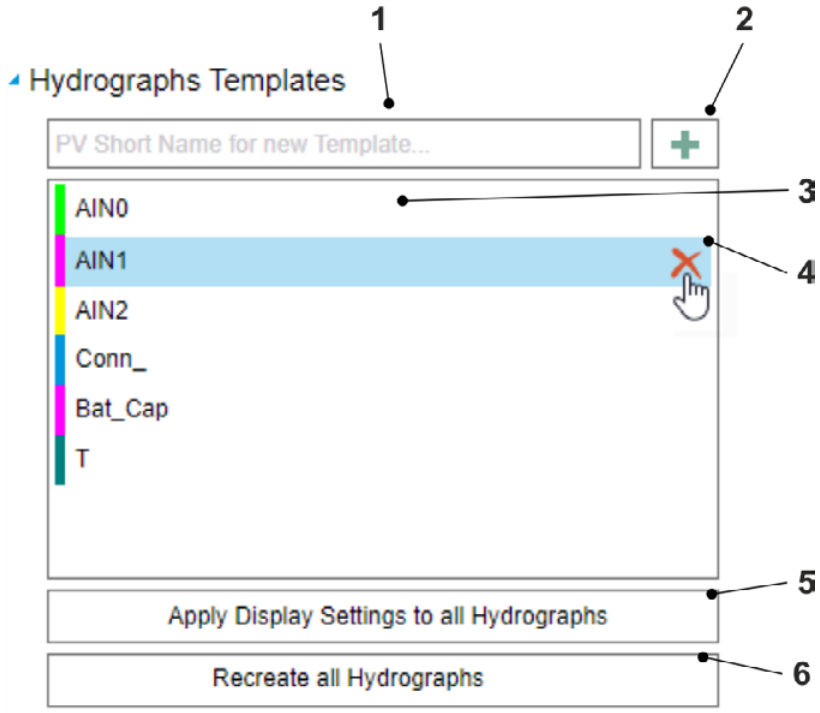
- **Existing hydrograph templates to new measuring points:** Automatically, i. e. for all process variables at the measuring point for which there are corresponding hydrograph templates, the hydrographs are created automatically.
- **New or deleted hydrograph templates on existing charts:** User-triggered using the **Recreate all Hydrographs** function: All charts of all measuring points are recreated based on the hydrograph templates. If new hydrograph templates have been created, then the corresponding hydrographs are created in the charts of the measuring points. If hydrographs are created in the charts for which there is no hydrograph template, they will be deleted from the charts. Manual changes previously made to the charts are also overwritten.

  Important: Before executing, make sure that there is no possibility of unintentional data loss.
- **Changed hydrograph templates to existing hydrographs:** User-triggered using the function **Apply Display Settings to all Hydrographs**: Style changes in the hydrograph templates are applied to all corresponding hydrographs at the measuring points. Manual changes previously made to the hydrograph configurations are also overwritten.

At the measuring points

- additional hydrographs can be created at any time,
- hydrograph configurations from hydrograph templates can be overwritten.

Abb. 7-46: Project > Hydrograph Templates



1 Input field for a new hydrograph template
The name of the hydrograph template must be identical to the PV short name of the process variable to which the hydrograph template is to be applied.

2 Creates the new hydrograph template

3 Overview of hydrograph templates
Here you can select a hydrograph template to edit it.

4 Shown only on mouseover: deletes the selected hydrograph template

5 Function **Apply Display Settings to all Hydrographs**: Style changes in the hydrograph templates are applied to all corresponding hydrographs at the measuring points.

6 Function **Recreate all Hydrographs**: All charts of all measuring points are recreated based on the hydrograph templates.

Important: Before executing, make sure that there is no possibility of unintentional data loss.

7.2.4 Hydrograph Templates: Configuration Options

Below you can find a list of all available configuration options for hydrograph templates.

The options are divided into 2 groups.

Tab. 7-39: Configuration of Hydrograph Templates: **Data Series**

Name	Description	Entry
Short Name	Name of Hydrograph Template In order for the hydrograph template to be applied to a specific process variable, the name of the hydrograph template must match the short name of that process variable.	Free text
Colour	Colour of all representation parameters of the process variable in the chart (hydrograph, PV legend, marker, guides and value axis)	Click the colour field to open the colour palette, then select the colour.

Tab. 7-40: Configuration of Hydrograph Templates: **Value Axis**

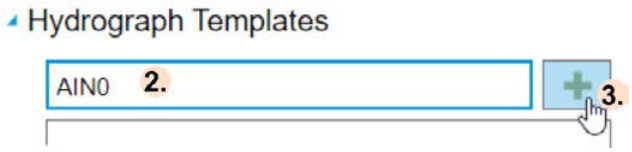
Name	Description	Entry
Show Graph Value Axis	Shows / hides a separate value axis for the hydrograph in the chart and shows / hides the following options for the configuration of value axes	☑: Hydrograph value axis is shown ☐: Hydrograph value axis is not shown
Position (only visible with the activated value axis)	Axis Position	Select from list
Scaling (only visible with the activated value axis)	Value range of value axis	Select from list with the options: **Automatic**: minimum to maximum measurement value **Measurement Range**: entire measurement range **Manual**: free definable value range
Minimum (shown only if Scaling = Manual)	Lower limit of value range	Numerical value
Maximum (shown only if Scaling = Manual)	Upper limit of value range	Numerical value
Unit	Scaling unit	Select from list

7.2.5 Configure Hydrograph Template

The following sequence provides an example on how to create and to configure a hydrograph template.

Procedure

1. Open the > **Project** tab
2. Specify a name for the new hydrograph template

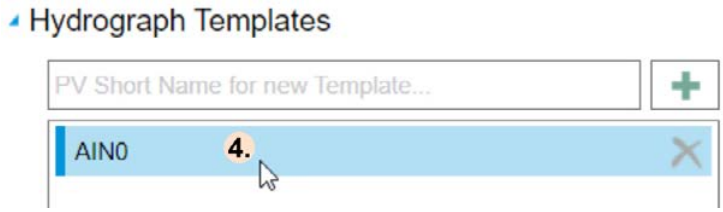


ⓘ The name must be identical to the PV short name of the process variable to which the hydrograph template is to be applied.

3. Click ✚

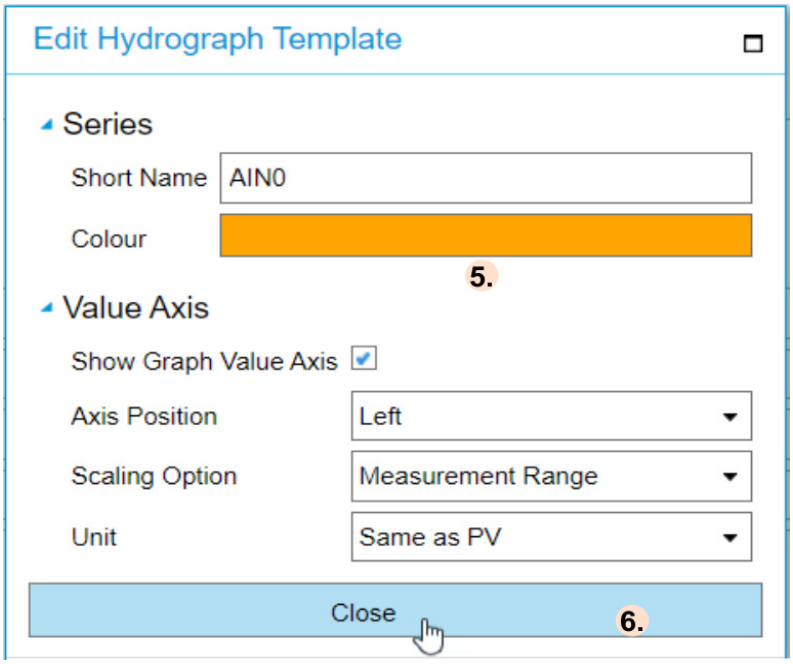
→ The hydrograph template is created and shown in the hydrograph template overview. The hydrograph template is not yet saved.

4. Select hydrograph template



→ The **Edit Hydrograph Template** window opens.

5. Configure the hydrograph template as desired



6. Click **Close**

→ The **Edit Hydrograph Template** window is closing. The hydrograph template is not yet saved.

7. In the working area top right click the save symbol

Result

→ The hydrograph template is saved and configured.

8 User Tab

Note: The > **User** tab is available only to users with administrative rights.

The > **User** tab is subdivided into 3 sections:

Function Bar

- Functions to create and edit the user accounts.

Navigation Area

- Users overview containing all users created in the project.
- Option to select an user. The user configuration of this user is shown in the working area.

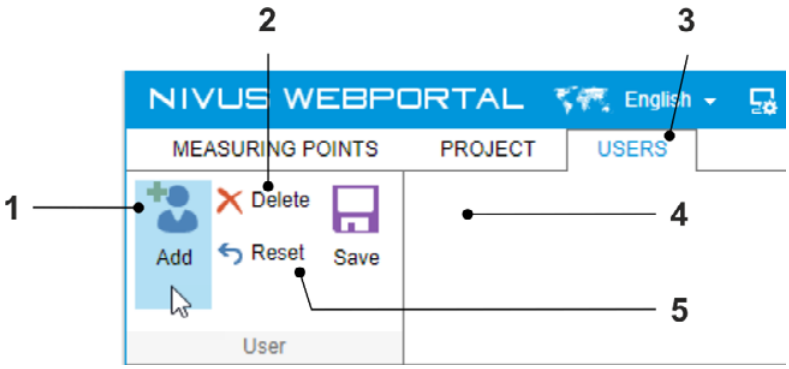
Working Area

- Display and editing option of the user configuration, this includes
  - general user information
  - availability for remote alarming
  - access rights

8.1 Function Bar

> **User**

Abb. 8-47: Function Bar in the **User** Tab

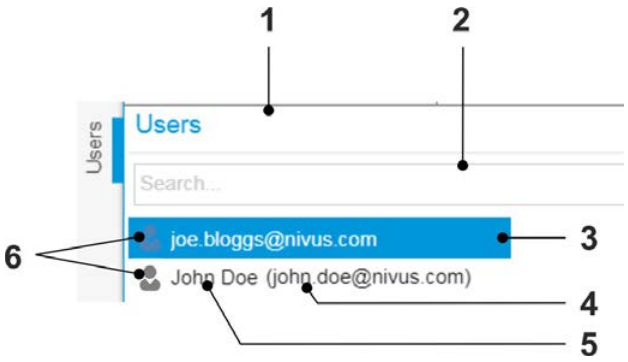


1 Opens the window **Create User**
2 Deletes the user selected in the user list
3 Tab **User**
4 Active only when user configuration has been changed: saves the changes
5 Active only when user configuration has been changed: resets the changes

8.2 Navigation Area

In the Navigation Area you can find the user list containing all users created in the project. Here you can select the user whose configuration is to be displayed in the working area.

Abb. 8-48: Navigation Area: User List



1 User list
2 Full text search
3 Selected user: (blue frame): the information and user rights on this user are shown in the working area
4 User Name
5 Optional: first name and second name of the user
6 Labelling of Active Status
User is activated
User is deactivated
Configuration of active status see working area

Related links
Working Area

8.3 Working Area

In the working area, you can edit the user accounts.

Below you can find a list of all available options for the configuration of users. The options each relate to the selected user and are divided into 3 groups.

Common

Under **General** you configure the general user information.

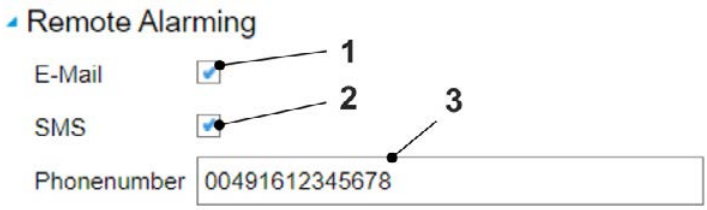
Tab. 8-41: User Configuration: General

Name	Description	Entry
Active	Active-Status of User	☑: The user is active. ☐: The user is deactivated.
ID	User ID, assigned by the system	Not editable
First Name **Last Name**	First name and second name of the user	Free text
Street **City** **Zip**	User address (no effect on other functions)	Free text
Language	Additional information (no effect on other functions)	Select from list

Remote Alarming

Under **Remote Alarming** you can activate the user account for remote alarming by e-mail and /or by SMS. This means that the user is notified by email and / or SMS as soon as a process variable creates a message book entry and all other conditions for remote alarming are fulfilled. (Remote alarming by SMS = additional service at extra charge)

Abb. 8-49: User Configuration: Remote Alarming



1 Activates / deactivates the user for remote alarming via e-mail
2 Activates / deactivates the user for remote alarming by SMS
3 Mandatory if (**2**) is activated: Input field for the telephone number to which the SMS notification is to be sent.

User Rights

Under **User Rights** you can

- activate / deactivate the access right to the individual sub-sections for the selected user
- give or take away administrator rights from the selected user

Related links
Authorisations

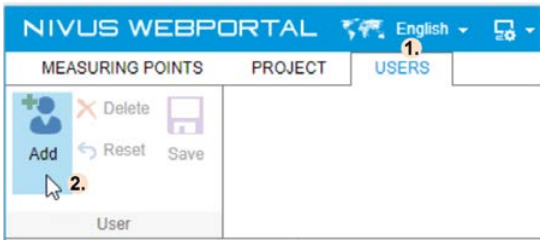
8.4 Create User

Prerequisite(s)

✓ You have administrator rights.

Procedure

1. Open **> User** tab

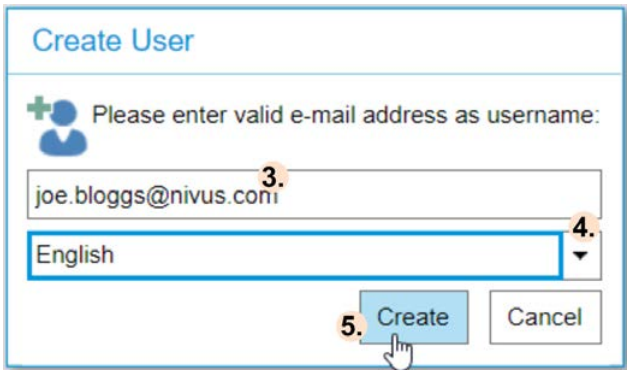


2. Click **Add**

   → The **Create User** window opens.

3. Enter the user name

   ⓘ The user name must be a valid email address of the user.



4. Open the drop-down menu and select the language for the user interface

   ⓘ The language settings can be changed by the user at any time.

5. Click **Create**

Result

→ The new user is created and shown in the user overview with the according user name.

→ The new user is active but has no access rights.

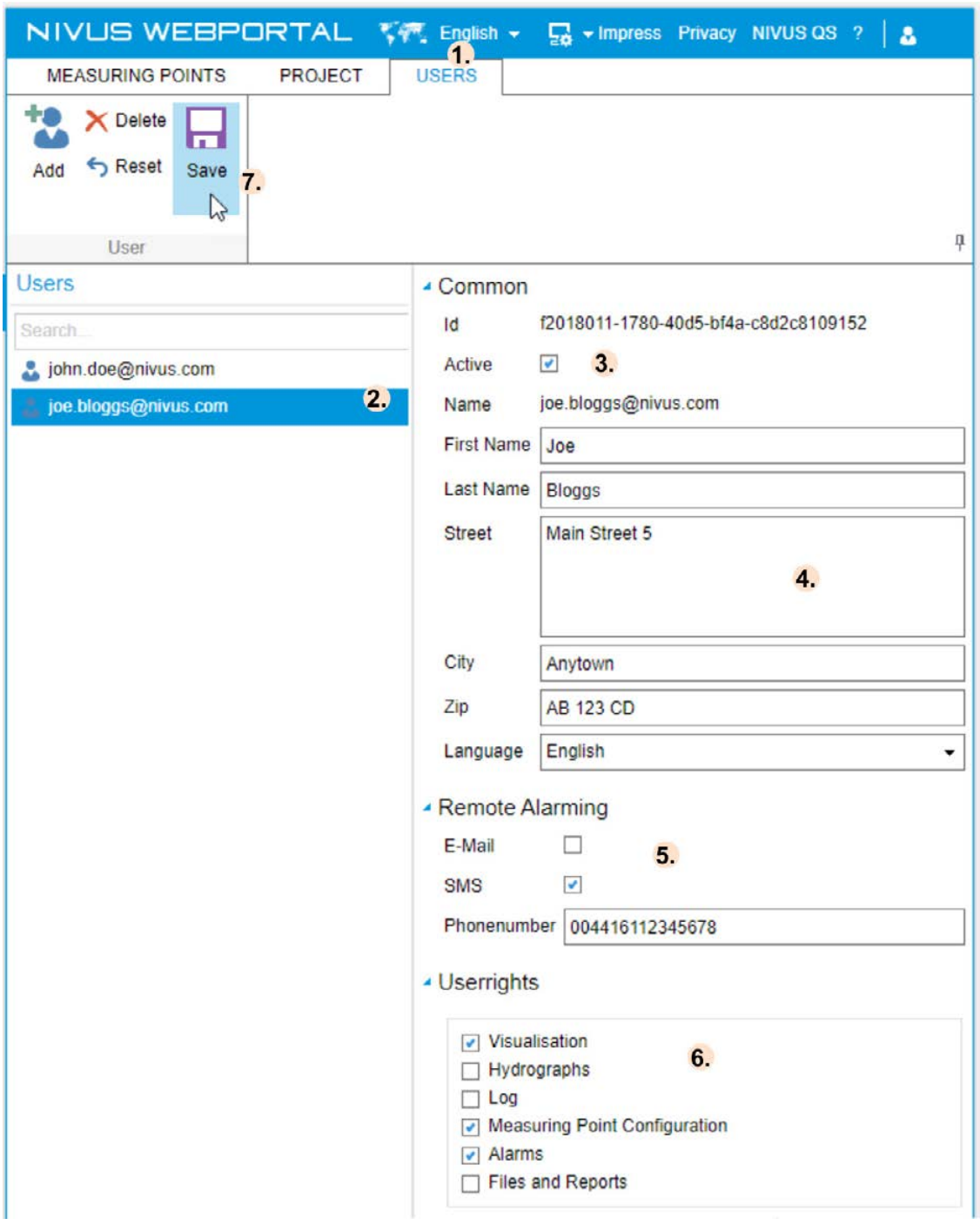
→ The new user receives an e-mail which contains access information.

After Completing This Task

Edit User Configuration

8.5 Edit User Configuration

Abb. 8-50: Edit User Configuration



Procedure

1. Open > **User** tab
2. Select the user from the user list
   → The user is marked (highlighted blue).
   → In the working area, its user configuration is displayed.
3. Optional: activate user
4. Edit desired user information

5. Optional: Unlock user for remote alarming via e-mail and / or SMS. For remote alarming via SMS: specify telephone number.
6. Activate or deactivate desired access rights
7. In the function bar click **Save**

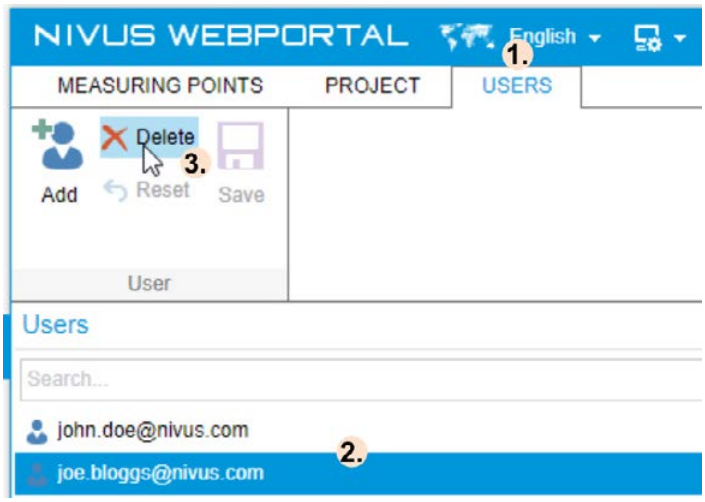
Result

→ The changes are saved in the database.

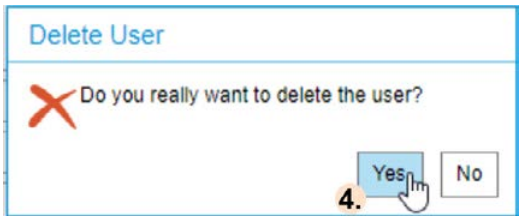
8.6 Delete User

Procedure

1. Open **Users** tab



2. Select the user from the user list
   → The user is marked (highlighted blue).
3. In the function bar click **Delete**
   → The confirmation prompt opens.



4. Acknowledge the confirmation prompt with **Yes**
   ⓘ If you do not wish to remove the user, abort by clocking **No**.

Result

→ The user will be deleted.

9 Help in Case of Problems

If problems with the NIVUS WebPortal should arise check whether you can solve the problems yourself by using the information given in the table below. Should this not be possible contact the NIVUS support.

Tab. 9-42: Fault Table (Sheet 1 of 2)

Problem	Possible Reason(s)	Remedy
The NIVUS WebPortal is not available	No Internet connection	Connect with the Internet
	NIVUS knows about the problem	Contact NIVUS support, see Support
User cannot log in to NIVUS WebPortal (Invalid username or password)	Entered user name or password wrong	Enter correct user name and password If required, request a new password, see Reset Password
	User account is deactivated	Have user account activated by user with administrative rights in the project available, see Edit User Configuration
No data transmission from device to the NIVUS WebPortal	Device is not unlocked for the NIVUS WebPortal	Unlock the device for the NIVUS WebPortal (see Instruction Manual / Handbook of the device)
	Device battery empty	Charge battery
	Wrong device assigned to the measuring point	Check serial number, see Measuring Points Overview
	Mobile data reception not available	Ensure network reception
Data not saved in NIVUS WebPortal	Device is not assigned to a measuring point	See Link Device to a Measuring Point
	No PV available for the device input on the measuring point	No data storage available on the measuring point
	PV is not active	See Activate / Deactivate Process Variable
The **Projects** and **User** tabs are not displayed	The user has no administrator rights	Have administrator rights assigned by user with administrative rights, see Edit User Configuration
Tab for a subsection is not shown	User has no access right	Have access rights assigned by user with administrative rights, see Edit User Configuration
Button **Measuring point > New** is not active	No free measuring point license available	Purchase an additional measuring point licence from NIVUS or approve a measuring point licence, see Remove Measuring Point - Device Link
No data shown on the measuring point	Basic system is offline	Check connection status (top right)
	Wrong time range selected	Select correct time range, see Group Time Filter

Tab. 9-42: Fault Table (Continued) (Sheet 2 of 2)

Problem	Possible Reason(s)	Remedy
Measurement Ranges / Scalings and measurement are not compatible	Wrong PV Configuration in NIVUS WebPortal	Check PV Configuration, see Edit Process Variable and Configuration of Process Variables
Configuration of Hydrographs is not active	User not authorised for **Hydrographs** subsection	Have access rights assigned by user with administrative rights, see Edit User Configuration
No measuring point chart shown in the **Hydrographs** view	The chart is not configured	Configure chart and hydrographs, see Configure Hydrographs
	Wrong time range selected	Check selected time range, see Group Time Filter
	No data was saved in NIVUS WebPortal.	See above
Report configuration not active	User not authorised for **Files and Reports** sub-section	Have access rights assigned by user with administrative rights, see Edit User Configuration
Button **Project > New** is not active	No free project licence available	Purchase additional project licence from NIVUS
Incorrect presentation of the NIVUS WebPortal	Outdated Browser (no HTML5)	Use current browser, preferably Google Chrome (Internet Explorer is not supported)
	Incorrect presentation from browser cache	Flush browser cache